Civil Liability for Marine Oil Pollution Damage

- A comparative and economic study of the international,

US and the Chinese compensation regime

Burgerlijke aansprakelijkheid voor zeewater verontreiniging door olie

- een vergelijkende en rechtseconomische analyse van

het internationale, Amerikaanse en Chinese vergoedingsystem

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Finally, just hope I can defend my work in the way that my parents would be proud of.

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Table of Contents:

Abbreviations

Bunker Convention	Convention on Civil Liability for Bunker Oil Pollution
CLC	International Convention on Civil Liability for Oil Pollution Damage
Collision Convention	International Convention for the Unification of Certain Rules relating to Collisions between Vessels 1910
COLREGs	Convention on the International Regulations for Preventing Collisions at Sea 1972
CMI	Comité Maritime International
CRISTAL	Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution
EEZ	Exclusive economic zone
Fund Convention	International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
Hague Rules 1924	International convention for the Unification of Certain Rules of law relating to Bills of Lading
Hamburg Rules 1978	United Nations Conventions on the carriage of Goods by Sea
HNS Convention	Convention on Liability and Compensation for Damage in Connection with Hazardous and Noxious Substances by Sea of 1996
IMCO	Intergovernmental Maritime Consultative Organization
IMO	International Maritime Organization
INTERTANKO	International Association of Independent Tanker Owners
Intervention Convention	The International Convention relating to the Intervention on the High Seas in Cases of Oil Pollution Casualties
International Group	The International Group of P & I Clubs
ITIA	International Tankers Indemnity Association
ITOPF	The International Tanker Owners Pollution Federation Ltd.
IUMI	International Union of Marine Insurance
Limitation Convention 1924	International Convention for the Unification of Certain Rules relating to the Limitation of Liability of Owners of Sea-going Vessels 1924
Limitation Convention 1957	International Convention relating to the Limitation of the Liability of Owners of Sea-going Vessels 1957
LLMC 1976	Convention on limitation of Liability for Maritime Claims 1976
MARPOL 73/78	International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto
MEPL	Marine Environmental Protection Law of the People's Republic of China
MOUs	Memorandum of Understandings
NPFC	National Pollution Funds Center
OCIMF	Oil Companies International Marine Forum
OECD	Organisation for Economic Co-operation and Development
OPA	Oil Pollution Act of 1990
OSLTF	Oil Spill Liability Trust Fund

Paris Convention 1960	Paris Convention on Third Party Liability in the Field of Nuclear Energy
P & I Clubs	Protection and Indemnity Clubs
SOLAS	Convention for the Safety of Life at Sea
STCW Convention	The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers1978
STOPIA	Small Tankers Oil Pollution Indemnification Agreement
TOPIA	Tanker Oil Pollution Indemnification Agreement
TOVALOP	Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution
UNCTAD	The United Nations Conference on Trade and Development
UNCITRAL	The United Nations Commission on International Trade Law
U.S.C.	United States Code
Vienna Convention	Vienna Convention on Civil Liability for Nuclear Damage, 1963
Warsaw Convention	Convention for the Unification of Certain Rules relating to International Transportation by Air, 1929

Chapter 1 Introduction

I. Reasons for research

Oil resources are unevenly distributed on the earth[1] and most oil needs to be transported by sea.[2] Therefore, ocean transport of oil is largely a one-way trade from the principal supply areas to the oil consuming states. The main routes of crude oil shipping are from the Middle East and Southeast Asia to the United States, Western Europe, Japan and China.[3] It is often on these busy routes that the oil pollution incidents occur. Since the Second World War, oil has become the main source of energy in the world.[4] Oil movements by sea increased since then, more and larger tankers were built to satisfy the increasing need for oil consumption.[5] Hence, the problem of marine oil pollution increased with the growth of carriage of oil by sea.

Among all the pollutants from ships, oil probably has the highest public profile. There are several reasons that may explain this phenomenon. First, as various statistics indicate, oil is one of the most transported cargoes by sea. In the 1970's, 100 million tons of oil is transported at sea each day and 2/3 of the ton miles of all cargoes transported by sea are oil cargoes.[6] In 1998, the total oil products (including crude oil and refined products) transported by sea amounted to more than 2,000 million tonnes which in weight terms represented 40 percent of the total cargoes shipped by sea.[7] The frequent transportation of oil by sea may pose a high risk of pollution. Second, oil has the character of being visible compared with other chemicals.[8] Most chemicals are less visible once discharged into sea, although they may present high risk to human health and marine environment. On the other hand, the image of the smothering birds and other wildlife is often widely covered by the media as the example of immediate impact of an oil spill.[9] Moreover, oil pollution often causes damage on such a large scale that it is often considered a catastrophe.

Indeed, oil pollution results in negative environmental, social and economic consequences. The effects of a particular oil spill may depend on many factors, including the volume and the type of oil spilled, the season and the location of the spill in relation to the nature and geography of the site. Ecological effects may include physical and chemical changes in habitats, changes in

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[1] The Middle East region alone accounts for about 57% of the world's total oil reserves. 8 countries, i.e. Saudi Arabia, the Soviet Union, Kuwait, Iran, Iraq, the United Arab Emirates, the United States and Libya actually own 68% of the world's total oil reserves. Also half of the world's proven oil reserves are concentrated in a few super oil fields, such as Ghawar (Saudi Arabia), Burgan (Kuwait), Rumaila (Iraq). See Paul Yuan, China' Offshore Oil Development Policy and Legislation: An Overall Analysis, International Journal of Estuarine and Coastal Law, Vol.3, No.2, 1988, p101-102.

[2] Sweeney, J., Oil Pollution of the Oceans, Fordham Law Review, Vol.37, 1968, p156. He also pointed out such a one-way character of oil transport by sea may create additional problems in that tankers must carry sea water as ballast in the cargo tanks on the return trip. This caused pollution due to contact with oil residues in the tanks.

[3] De la Rue, C. and Anderson, C., Shipping and the Environment Law and Practice, LLP, 1998, p10.

[4] De la Rue, C. and Anderson, C., 1998, p10.

[5] The transportation of oil by sea can actually be carried out either by pipelines or by tankers. However, due to natural or marine barriers, some states cannot be served by pipelines. Hence, most of the oil transport is still carried out by tankers. Tankers can appear similar to bulk carriers, but the deck is flush and covered by pipelines and vents.

[6] Kurz, A., Ten Years of TOVALOP, ITOPF, p1.

[7] EUROSTAT and OECD/IEA statistics, Journal de la Marine Marchande.

[8] Manual on Chemical Pollution, IMO, 1999, p1.

[9] De la Rue, C. and Anderson, C., 1998, p378.

growth or behaviour of individual organisms and species, increased mortality in individual organisms and species and destruction or modification of entire organism.[10]

Most publicized marine oil pollution incidents were caused by accidents with tankers. Take the cases of Erika (1999) and Prestige (2002) for example. Although most publicized, tanker accidents are not the major source of marine pollution. It is maybe striking to realize that among all the maritime sources that can cause oil pollution to the marine environment, tanker accidents cause only 3% of marine oil pollution.[11] One may hence wonder if it is necessary and useful to impose all the stringent regulatory standards merely to avoid tanker accidents, whereas 97% of all marine oil pollution is not caused by accidents. However, tanker related incidents can result in sudden escape of large quantities to cause damage by the sheer bulk of oil concentrated in a single location. The economic consequences of an oil spill are often extensive, as a wide range of industries might be related to the marine environment, such as fishing, aquaculture and tourism.[12] Moreover, the total amount of oil spilt into sea in tanker accidents remains substantial, despite the fact that oil pollution incidents are in the trend of decreasing over the last decades. It is estimated that the average number of accidents happening in the 1970s was around 24 per year with a total spill of about 320,000 tons. On the other hand, the average for the 1980s was 9 cases per year but involving much larger vessels, some with more than 200,000 tons of cargo aboard.[13] With an average increase of worldwide maritime traffic by 40% the last 10 years, it becomes obvious that the issue is sensitive.[14] Hence, it is still an important issue to control these major oil spills.

Although there are regulations aiming at higher safety standards designed to prevent the occurrence of oil pollution incidents, oil spills may nevertheless happen. In such cases the focus will be on how to compensate the victims of oil pollution. Indeed, the fast development of large-size tankers and frequent movement of oil at sea unavoidably constitutes a growing pollution risk to the seas and oceans. Via the occurrence of several serious oil spills, this risk has often materialized causing huge damage to the marine environment and human society.

The first major oil spill that made the whole world alert of the pollution risk of oil shipping was probably the Torrey Canyon incident in 1967. This was of course not the very first major oil spill that ever happened, but it demonstrates the scale of the problem of marine pollution, and it is only after the Torrey Canyon incident that the discussions concerning marine oil pollution started and legislations in this respect were activated worldwide. Since then, many international conventions dealing with oil pollution at different stages came into being.[15] Depending upon the purpose and function of these international conventions, a distinction can be made between on the one hand safety regulations designed to prevent oil spills which work *ex ante*, and on the other, conventions designed to provide contingency plans to respond efficiently to oil spills,

[10] Kim, I., Ten Years after the Enactment of the Oil Pollution Act of 1990: A Success or Failure, Marine Policy, 2002, Vol.26, p201. Also IMO, Manual on Oil Pollution, Section iv Combating Oil Spills, 1998, p19-21.
[11] Swift, P., Oil Shipping Today, Singapore Shipping Association, 8 March 2005.
[12] De la Rue, C. and Anderson, C., 1998, p378.
[13] Bellayer- Roille, A., Le Transport Maritime et les Politiques de Sécurité de l'Union Européenne, 2000, p25.
[14] Vanheule, B., Oil Pollution: The International Liability and Compensation Regime, European Transport Law, 2003, Vol.38, No.5, p548.
[15] Blanco-Bazan, A., The Erika Casualty, Legal Issues from the IMO View, International Union of Marine Insurance (IUMI) 2000 Conference London, 10-13 September 2000.

conventions providing the responsibilities and liabilities of the polluters which operate *ex post*.

At the international level, the compensation regime for oil pollution damage was first established via the International Convention on Civil Liability for Oil Pollution Damage 1969 (Civil Liability Convention 1969, or simply CLC 1969) and the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage (referred to as the Fund Convention 1971), whereby a strict and limited liability was exclusively imposed on the registered shipowner and a compulsory insurance mechanism of the shipowner was required. In addition, a compensation fund financed by the oil industry was set up as a second level of compensation. These departed largely from the traditional tort law or maritime law principles, and were considered revolutionary at the time.

When the whole international system on marine oil pollution compensation entered into force in 1978 (the year when the Fund Convention 1971 came into force), another oil spill incident (Amoco Cadiz) happened and it showed that this regime was ineffective and inadequate in case of a major oil spill. As a result, the CLC 1969 and the Fund Convention 1971 were modified in 1984 and 1992 mainly to increase the compensation limit and to expand the scope of compensation. Later again a series of oil spill incidents with the Erika in 1999 and with the Prestige in 2002 showed the insufficiency of the then existing liability system. So the regime was revised in 2000 with an updated liability limits, and later in 2003 with a Supplementary Fund providing for a third tier of compensation. This in turn led to some voluntary arrangements from the shipping industry and its insurers.

In the course of these modifications, the compensation limits have always been upgrading and the scope of application of the compensation regimes has been expanded. However, the basic principles of strict liability, limitation of the liability and compulsory insurance remain, the so-called channelling of liability to the registered owner (whereby the liability of others are excluded) still plays a role, and the dual compensation from the shipping and the oil industry still exist.

II. Academic interest in the topic

Already after the introduction of the Civil Liability Convention in 1969, the liability regime was supplemented by a Fund Convention in 1971, with the goal of providing sufficient compensation to victims. However, many serious oil pollution incidents led to various protocols and amendments since it became clear that the original system laid down in the very first conventions was largely insufficient. The mere fact that the international conventions keep being revised may also lead to the doubt whether such a regime is really effective. Today the question still exists whether the international regime for the compensation of pollution damage is indeed effective. This question is increasingly posed after major incidents like the one with the Erika and the Prestige which showed the inadequacy of the current system. The liability system thus merits the question whether the current international regime as it has developed through history, which is adequate for the compensation of oil pollution damage today, could still remain adequate for future damages which can be potentially on a larger scale.

Moreover, various aspects of the marine oil pollution compensation regime have been criticized. A first point of critique concerns the limitation of liability. Although the conventions were regularly amended and the amounts were regularly increased, practice always shows that the limited amounts of liability are not sufficient to provide adequate compensation in case of a serious accident. For instance, during the Exxon Valdez investigation, it became clear that the total damage amounted to 50,000,000,000 US Dollars in claims with Exxon, whereas there was only 500,000,000 insurance coverage available, being merely one percent of the damage. In the literature, it has been claimed that financial caps may have a negative influence on the incentives of tanker owners to prevent oil pollution. If the liability is limited by law, civil liability can no longer have an optimal preventive effect on the behavior of the tanker owner. Hence, the question arises whether the limitation of liability may indeed dilute the incentive for prevention from the potential injurers in a particular accident. The literature has also revealed the anomaly caused by the system of limitation of liability, whereby the small-scale damage can get full compensation while the damage on a bigger scale cannot be fully compensated, although the victims are innocent.[16]

A second problem relates to the system of compulsory insurance of oil pollution. The damage resulting from oil pollution is insured through the well-known associations of tanker owners, the so-called Protection and Indemnity Clubs (P&I Clubs). These P&I Clubs are organized in the International Group of P&I Clubs, which largely limits competition.[17] Price competition between P&I Clubs is very limited and the anti-competitive effects on this market have already been under scrutiny from the European Commission. However, to a large extent, the pooling arrangements between the P&I Clubs can benefit from an exemption from competition law. Some have claimed that this high concentration on the insurance market for oil pollution may have negative effects for the way in which P&I Clubs as insurers regulate the prevention of oil pollution damage. Indeed, the literature has suggested that if competition were too limited, the incentives for insurers for an adequate control of the risk would be too limited as well.[18] Hence, the question arises whether the current market structure of insurance via P&I Clubs may negatively affect the prevention of oil pollution damage.

A third problem concerns the compensation for environmental damage. Once an oil spill occurs, the marine environment will be adversely affected. Although the marine environment has a strong capability of self-recovering, the damage to certain species, particularly some endangered species could be irreversible. Hence, some authors believe that the legal rules concerning compensation for damage caused by oil pollution should therefore not only cover the traditional damage to property and personal injury, but also damage to the environment *per se*. However, the damage to the environment *per se* is difficult to quantify. Under the international conventions, the compensation for damage to the environment is limited to the costs of reasonable preventive measures. This is often a critique on the international oil pollution compensation system. On the

[16] Johnston, D. (ed.), The Environmental Law of the Sea, International Union for Conservation of Nature and Natural Resources (IUCN), Gland, Switzerland, 1981, p199.
[17] For further details concerning the P & I Clubs, see the discussion in Chapter 2.
[18] Faure, M. and Heine, G., The insurance of fines: the case of oil pollution, The Geneva Papers on Risk and Insurance, 1991, p49-50.

other hand, under the US system, the natural resource damage assessment is based on an arbitrary model, which is equally criticized. Therefore to find an optimal method to compensate the environmental damage remains a crucial issue.

A fourth problem is the channelling of liability. The international conventions have established a system whereby the liability for oil pollution compensation is channelled to the registered shipowner. Such a channelling system seems paradoxical. On the one hand, the channelling could be an advantage for the victim since the registered shipowner is relatively easily identifiable, and hence it will save the time and resources to spend in finding out the responsible parties. On the other hand, it also limits the right of the victim to bring an action against the party who is actually responsible for the incident. There is a risk that when the registered owner is insolvent or due to other reason unable to take the financial responsibility, the victim might run the risk of receiving no compensation at all. Although the risk of insolvency is reduced via the mechanism of insurance, it was also argued by some that such direct action gave the claimant the right to bring claims directly against the insurer of the shipowner, so there are actually two parties who can be held liable and this is in effect against the original rationale of channelling which is meant to direct the claim at only one party instead of two or more.[19] It is argued by some, *inter alia*, the insurance industry that if the idea of channelling were to save insurance costs, several people can take out insurance in respect of the same incident. It is also a common practice in the insurance industry that several parties co-insure under the same policy. Since these parties will normally take insurance to cover the risks of recourse actions although it is not obligatory under the international conventions, co-insurance seems less costly than simply channelling the liability to one party.[20] Therefore, channelling is also exposed to various critiques.

Some economic literature has also shown that the liability system is not only a remedial measure as such, an effective liability system will give the potential polluter incentives to take precautionary measures to avoid pollution or to reduce the possibility of pollution as well. Hence, the adequacy of the liability system may also be examined from an economic perspective, more particularly as far as its preventive effect is concerned.

Therefore, this thesis aims to examine (with the assistance of some legal as well as multidisciplinary tools) the efficiency and the effectiveness of the international regime of the civil liability for marine oil pollution. Particular attention should be paid to examine whether the whole liability system is designed in the public interest and if it will reduce the overall social costs of oil pollution incidents by making efficient use of the available resources, or whether the system is only built as a distribution of risks and costs. Finally, hopefully some policy recommendations and constructive perspectives for future development of the liability system can be developed through the legal and economic analysis proposed in this thesis.

There have been some works dealing also with the topic of oil pollution liability. For instance,

[19] Røsæg, E., The Impact of Insurance Practices on Liability Conventions, Proceedings from the European Colloquium on Maritime Law, Oslo, 7- 8 December 2000, p130 - 131.
[20] Røsæg, E., 2000, p131.

Wu in her dissertation in 1996[21] has analyzed the international oil pollution compensation regime in comparison with the US regime. She focused more on the contents of the regime than the legal history and she mainly dealt with the issue from a legal perspective. Brans[22] also examined the oil pollution regime at both the international and the US level. In his work, Brans concentrated on one particular aspect of the liability system, being the compensation for natural resource damage. Different than the previous work, this thesis will examine the legal history of the international oil pollution liability system, not only from a legal history perspective, but also in combination with the use of economic instrument. Thus the major features of the international regime (including the compensation for natural resource damage which has been examined from a purely legal perspective by Brans) will be examined from a law and economics perspective. In addition, the comparative analysis in this thesis will also include a particular case of China which represents the states that have not adopted a complete compensation regime yet. Through the examination of the legal history and the most recent changes of the international regime, and by a comparative study of the international, the US and the Chinese oil pollution compensation regime, with the assistance of the economic instrument, this thesis may provide different insight than the previous work. The innovative aspect of this dissertation thus lies mainly in its multidisciplinary, comparative and integrative character. Indeed, there has been some criticism in the legal literature with respect to certain aspects of the international compensation regime, focusing e.g. on the limits of liability. Economists on the other hand have also analyzed and criticized the international regime again, for the limits of liability on the tanker owner but also for the exclusive channelling of liability, thus potentially diluting incentives for prevention. However, the goal of this thesis is to for the first time bring this legal and economic research together by providing a legal/economics analysis of the oil pollution compensation regime. This regime had as such not been the subject of a thorough analysis from a law and economics perspective. Moreover, this law and economics approach will be combined with a comparative approach. Differences between the international oil pollution compensation regime and the compensation schemes in China and the US will be sketched. However, this thesis does not merely attempt to provide a traditional comparative legal perspective, but combines the comparative approach with the law and economics methodology. This allows some insights into the comparative efficiency of the international Chinese and US compensation schemes. Thus the thesis attempts to innovate the research in this area by combining multidisciplinary (law and economics) with comparative research and thus integrating these various approaches into one study. This integrative approach allows a better understanding of the functioning, effects and efficiency of the compensation regimes at international level, in the US and in China.

However, the goal of this thesis is not to make a handbook for oil pollution issues,[23] the major issues discussed in this thesis mainly concern the most characteristic features of the civil liability regime for oil pollution damage, such as the strict liability, the channelling of liability, limitation of liability, compulsory insurance and alternative financial compensation mechanism.

[21] Wu, C., Pollution from the Carriage of Oil by Sea: Liability and Compensation, Kluwer Law International, 1996.
[22] Brans, E., Liability for Damage to Public Natural Resources: Standing, Damage and Damage Assessment, Kluwer Law International, 2001.
[23] For a detailed analysis of various aspects of oil pollution issues, see e.g. De la Rue, C. and Anderson, C., 1998; Özçayir, O. Z., Liability for Oil Pollution and Collisions, LLP, 1998.

III. Methodology

In this dissertation, the legal history of the international conventions will be analysed. This can teach us how the current system on civil liability for marine oil pollution was designed, what were the motives behind it and who were the main players. By examining the evolution of the civil liability regime, one can find out how the legal rules in the conventions were adapted to different contexts.

The comparative method will also be employed since the comparison between different legal regimes will disclose the advantages and disadvantages of solutions chosen in particular legal systems. Currently, the prevalent civil liability system for marine oil pollution damage is the Civil Liability Convention and the Fund Convention with the subsequent Protocols. They enjoy a large number of member states. However, the US constitutes an exception to the international regime because it adopted its own domestic law in 1990, the Oil Pollution Act. The comparison between the international and the US regime may contribute to finding better solutions to the existing problems with the liability system. However, there are also countries, in particular some developing countries that do not have a complete compensation system in the sense that they have not ratified the Fund Convention, but only the CLC. In this respect, China is a good example. Moreover, in the Chinese legal system, different rules apply to different ships. This means that domestic law will be applied to Chinese ships, while the international conventions ratified by the Chinese government will apply to cases with an "international factor" or "foreign element". A complication arises as the national law provides a lower limitation of liability compared with those under the Convention. This different treatment of disputes based on discrimination of nationality was criticized by Chinese scholars. Hence, it might be useful to include such a legal system in the comparative study in order to examine whether the international regime does have an added value for victims.

In maritime law, there is an interesting phenomenon that maritime casualties often act as impetus for the adoption of new conventions or for the modification of existing conventions. So by studying some major oil pollution cases, the reason why certain legal rules were shaped in the particular way will be investigated.

In addition to the purely legal approach, a multidisciplinary approach will also be adopted. Evaluating the legal rules and institutions from the perspective of economic efficiency might contribute to a different insight of the legal rules and it may be useful in critically examining the legal system. Hence, some knowledge from economics will be used to analyze the law from a different perspective. Moreover, in law and economics different schools of thought exist. The economic theories applied in this thesis are mainly the neo-classical economic analysis of tort law and insurance and the public choice theory. The latter is particularly interesting since it pays attention to the influence of interest groups on legislation. Hence, such a "private interest" approach inherent in public choice theory may allow us to examine whether the contents of he international conventions can be considered as the result of the influence of the various interest groups involved.

For this reason, traditional legal tools (legal history, comparative law study, case study) will be

employed in combination with the tool of economics in attempt to answer the central research problems defined in Chapter 2.

IV. Structure of the thesis

This thesis will be formulated in the following structure: First, after a short introduction in this Chapter 1 on the reasons and methodology for this research, the main problems to be discussed in this thesis will be defined in Chapter 2, and the main players in oil shipping and related activities will be introduced as well. Then in Chapter 3 the legal framework for marine pollution will be sketched in order to understand the role civil liability plays in the situation where oil is discharged to sea and causes pollution damage. In Chapter 4 the legal history of the existing regime will be examined, particularly the coming into being of the Civil Liability Convention 1969 and the Fund Convention 1971, and the role of the voluntary industrial schemes will also be addressed. Later in Chapter 5, the revisions of the international regime since its creation (the Protocols of the international conventions and the disappearance of the voluntary schemes) will be analyzed, especially the changes in 1992, 2000 and 2003. Then the special regime in the US will be examined in Chapter 6. Since the (economic and political) situations in developing countries make them different than the developed countries, the special legal regime in China concerning civil liability for oil pollution will be analysed in Chapter 7. In Chapter 8, the international, the US and the Chinese civil liability regimes on oil pollution will be submitted to a comparative analysis. Having examined the problem from a legal perspective, the tool of economics will be employed in Chapter 9 to critically analyse what are the efficient and inefficient aspects of the current oil pollution compensation systems internationally, in the US and in China. Finally in Chapter 10, the recent court decisions of the Erika case will be discussed, some concluding remarks will be drawn from the analysis in the previous chapters and some policy recommendations will be formulated.

Chapter 2 Problem Definition

I. Introduction

It is crucial to define accurately the subject on which this research is based. Hence this Chapter will focus on an accurate definition of the central research problem. There are certain terms which are often used in maritime law, but might seem strange to those who are not so familiar with the maritime business. So the special maritime law terms will be explained before the discussion of the central problem could be commenced. Moreover, the main players who play important roles in the international legislative process for maritime conventions will be briefly discussed. In the last two sections of this Chapter, after clarifying the basic terms, the central research problem will be defined, and the limits of this research will also be addressed.

II. Special terms in maritime law

1. Parties involved in shipping

Many parties are involved in merchant shipping. They may bear different titles in different contexts.

Normally, the contract of carriage is often (although not always) preceded by a contract of sale under which the cargo is sold from the seller to the buyer. Depending on the different terms of international trade, either the so-called FOB (free on board) or CIF (cost, insurance and freight),[1] the seller (under CIF) or the buyer (under FOB) has to arrange the contract of carriage as the "shipper". However, the relationship between the seller and the buyer is irrelevant to the issues discussed in this thesis. The sale contract is material only in so far as the carriage contract is attached to the sale contract and the sale contract actually decides who will be the party arranging the carriage contract.[2]

A "shipper" is "the party who contracts with a carrier for the carriage of goods", and a "carrier" is "the party who contracts to carry goods (or passengers) by water". The carrier can be the shipowner or the charterer of the ship (as will be discussed below). A "consignee" is "the party to whom delivery of the goods is to be made under a contract for the carriage of goods by water". [3]

The general practice in shipping is that all sea-going vessels are bound to register in a country and fly the flag of her registered country while sailing. The name of the shipowner must be mentioned in the registry. Thus the shipowner is established by registration. An "operator" and "master" of the ship often act as the agent of the shipowner.

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[1] International Chamber of Commerce (ICC) has developed in 1936 the first version of International Commercial Terms, often known as Incoterms. The most recent version of is Incoterms 2000. These terms are standard definitions of terms widely used in sales contracts in international trade. For further information of Incoterms, see the website of ICC: www.iccwbo.org/incoterms

[2] Gaskell, N., Debattista, C. and Swatton, R. J., Chorley & Giles' Shipping Law, Pearson Education Limited, 1987, p165.

[3] Tetley, W., International Maritime and Admiralty Law, 2003, p104-105.

2. Charterparty & Bill of lading

Traditionally, there are two major types of contracts used for the purpose of merchant shipping: the bill of lading and the charterparty.[4]

A charterparty is a contract between the charterer and the shipowner, by which the former hires from the latter for the use of the ship, either for a certain period of time (which is called a time charter) or for a certain voyage (which is called a voyage charter). These are in nature lease contracts just like the lease of any moveable thing like the rent of a motorcar for an excursion. There is also a third type of charterparty which is called a charterparty by demise or a bareboat charter, whereby the owner grants or demises the entire control and possession of the ship to the charterer.[5] According to Tetley, "a charterparty by demise is a contract by which the lessor places a ship in the hands of the lessee who assumes possession and control. The consideration paid by the charterer is 'hire', which is payable at specified intervals during the term of the charter."[6]

In both voyage charter and time charter, the shipowner retains control of equipping and managing the vessel and agrees to provide a carrying service. Differently, under a demise charter, the charterer displaces the owner and takes possession and complete control of the ship. Therefore, under a demise charter, the charterer mans and equips the vessel and assumes all responsibility for its navigation and management. For all practical purposes he acts as owner for the duration of the charter and is responsible for all expenses incurred in the operation of the vessel, and also for taking insurance for the vessel.[7]

The charterparty is often in written form, and some big shipping companies often have their own standard form of charterparty. Take for instance, the INTERTANKO (see Section III) has produced a standard form time charterparty called INTERTANKTIME 80 for its member companies, and similarly, some big shippers will only charter on the terms of their own standard form, in this category, EXXONVOY or BEEPEEVOY for voyage charters and SHELLTIME for time charters are good illustrations.[8]

As for the bill of lading, there are some prevalent international conventions that might be relevant. One is International Convention for the Unification of Certain Rules of Law relating to Bills of Lading ("Hague Rules 1924"), which was amended in 1968, and the Protocol to amend the Hague Rules which is often known as the Visby Rules. The revised version of Hague rules is often referred to as the Hague-Visby Rules. The other is United Nations Conventions on the Carriage of Goods by Sea (Hamburg Rules 1978).

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[4] Gaskell, N., Debattista, C. and Swatton, R. J., 1987, p165.

[5] Gaskell, N., Debattista, C. and Swatton, R. J., 1987, p174. A bareboat charter is used when the charterer "takes over the ship, lock, stock and barrel, and mans her with his own people. He becomes, in effect, the owner pro hac vice, just as does the lessee of a house and lot…" Gilmore, G. & Blank, C., The Law of Admiralty, 1957, p171.

[6] Tetley, W., Glossary of Maritime Law Terms, 2nd ed., 2004, at website: http://www.mcgill.ca/maritimelaw/glossaries/maritime/#letter_c; Sweeney, J., 1968, p158.

[7] Wilson, J., Carriage of Goods by Sea, Pearson Education Limited, 2008, p1-8.

[8] Baughen, S., Shipping Law, Cavendish Publishing Limited, 2001, p171.

The charterparty is generally considered the evidence of the hire of a ship, while the bill of lading is considered the evidence of the contract of carriage of goods by sea. The bill of lading also serves as the receipt of cargo and document of title.[9] The relationship between the charterparty and the bill of lading is very complicated in the maritime venture and beyond the scope of the discussion in this thesis. However, in order to understand the discussion on the liability system for marine pollution, it is necessary to know who are the parties involved in these different forms of contracts.

3. Insurance

Marine insurance is said to have developed in the 12th century by Lombard merchants in northern Italy,[10] and it has developed with the activity of international trade.[11] Since the parties involved in maritime activity are exposed to considerable risks, they have a demand for insurance coverage. The shipowner may lose his ship or he may become liable to pay damages for the loss or damage to the cargo. Hence, marine insurance has developed to protect the shipowner from the risk of becoming insolvent as a result of the perils at sea.

In modern practices a shipowner will normally take insurance to cover the loss or damage sustained by his vessels. This type of insurance is called Hull and Machinery insurance, and it is normally confined to the loss of or damage to the insured property.[12] In addition, the shipowner also takes insurance against his liability. Such liability insurance is generally underwritten by the P & I Clubs. They are non-profitable organizations based on mutual basis, and are specialized in liability insurance.[13] The P & I Clubs consist of shipowners and are thus traditional "mutuals".

At the beginning of the year, each member in the Club is given an estimated total call, based on the tonnage insured and the riskiness of their operations (the latter referred to as a "rate" per ton). The estimated total call fixes only the proportion of total Club claims they will be held liable for in any one year. If claims are above average, the actual call will be higher.[14] There is an important rule of the Clubs, known as the "pay first rule", which is often included in the rulebook of P&I Clubs. It stipulates that the actual payment of his liabilities by the member is a condition precedent to his right of recovery. Another known rule is the so-called "omnibus" rule which confers on the directors of the association the discretion as to whether in certain circumstances a claim should or should not be paid. This rule is closely linked to the concept of mutuality, in that the directors who decide on the member's claims are members themselves, elected to their position by the membership as a whole.[15]

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[9] See Tetley, W., Glossary of Maritime Law Terms, 2nd ed., 2004.
[10] Tetley, W., Maritime Law as a Mixed Legal System, Tulane Maritime Law Journal, 1999, Vol. 23, Number 2, p336.
[11] Merkin, R., Marine Insurance Legislation, LLP, 2000, p xxxvi.
[12] De la Rue, C. and Anderson, C., 1998, p723.
[13] De la Rue, C. and Anderson, C., 1998, p697.
[14] Bennett, P., Mutual Risk: P & I Insurance Clubs and Maritime Safety and Environmental Performance, Marine Insurance, Vol.25, 2001, p15.
[15] For detailed discussion on the P & I Clubs, see a series of papers by Tilley, M., The Origin and Development of the Mutual Shipowners' Protection and Indemnity Associations, Journal of Maritime Law and Commerce, Vol.17, 1986, p261-270; Tilley, M., Protection and Indemnity Club Rules and Direct Action by Third Parties,

The major P&I Clubs (so far 13 of them) are organized in an International Group of P&I Clubs (International Group). These Clubs together provide liability insurance for approximately 90% of the world's ocean going tonnage, and 95% of the ocean-going tanker tonnage.[16] They expand the insurance capacity via pooling agreements or re-insurance. The purpose of this International Group is to provide a wider spread of risks so that larger claims can be met and commercial reinsurance is viable.[17] So, while each individual Club meets claims of up to US $ 8 million (retention), the next $22 million (the amount between $ 8 million and 30 million) of any claim is spread among all members of the International Group, and that part of any claim between $ 30 million and $2.03 billion is reinsured commercially. Beyond that the International Group would, hypothetically, meet the rest of any catastrophic claim up to a final limit of $6.9 billion.

Specifically with regard to oil pollution insurance, tanker owners are able to depend on the Club insurance up to $500 million, and owners are able to purchase an additional "excess" amount of $200 million, bringing the maximum amount of the Club insurance to a total of $700 million. The Clubs usually pay the first $14 million in owner claims themselves and the rest of the coverage is obtained in the reinsurance market. Most of the reinsurance is purchased through Lloyd's of London.[18]

III. Main players at international legislative level

1. The IMO and its Legal Committee

The International Maritime Organization (formerly known as Inter-governmental Maritime Consultative Organization, referred to as IMCO) was established in 1948 as a special agency of the United Nations to deal with "technical matters of all kinds affecting shipping engaged in international trade, to encourage and facilitate the general adoption of the highest practicable standards in matters concerning maritime safety, efficiency of navigation and prevention and control of marine pollution from ships".[19] Later its name was changed to International Maritime Organization (IMO). Most of the international conventions concerning maritime safety and marine environmental protection are developed under the auspices of the IMO. It enjoys a large number of member states. It has by 1999 already 158 Member States. Its competence was particularly acknowledged in the 1982 UNCLOS.[20]

Vol.17, 1986, p427-443; Tilley, M., The Protection and Indemnity Clubs and Bankruptcy, Journal of Maritime Law and Commerce, Vol.17, 1986, p531-538.

[16] From the website of the International Group of P & I Clubs: www.igpandi.org.

[17] Commercial reinsurers require a very large risk spread before insuring high magnitude event. Bennett, P., Mutual Risk: P & I Insurance Clubs and Maritime Safety and Environmental Performance, Marine Insurance, Vol.25, 2001, p17.

[18] Garick, J., Crisis in the Oil Industry: Certificates of Financial Responsibility and the Oil Pollution Act of 1990, Marine Policy, 1993, Vol.17, p282.

[19] Article 1 (a) of the Convention on the Inter-governmental Maritime Consultative Organization, adopted on 6 March 1948, entered into force on 17 March 1958. The name of the Organization was changed to International Maritime Organization in accordance with an amendment to the Convention which entered into force on 22 May 1982.

[20] Article 2(2) in Annex VIII of the UNCLOS Convention specifically mentioned the IMO and considered it the expert organization in the field of navigation, including pollution from ships and by dumping. In many other articles of the UNCLOS Convention, it referred to the "competent international organization" which is acknowledged worldwide to be the IMO. For a more detailed discussion on the competence of the IMO, see

The IMO consists of an Assembly, a Council and five main Committees: the Maritime Safety Committee (MSC), the Marine Environment Protection Committee (MEPC), the Legal Committee, the Technical Co-operation Committee and the Facilitation Committee. The Assembly is the highest governing body of the Organization, and the Council is the executive organ of the Organization. The MSC is the highest technical body of the IMO, the MEPC is responsible for issues related to the prevention and control of pollution from ships which fall within the scope of IMO, the Legal Committee is empowered to deal with legal matters of IMO, the Technical Co-operation Committee is required to consider implementation of the IMO's technical co-operation projects.

Among all the organs of IMO, the Legal Committee is the one that has developed the conventions on civil liability for marine oil pollution. The IMO's Legal Committee was originally established in 1967 on an *ad hoc* basis to deal with the legal issues raised by the Torrey Canyon disaster. Since then, the work of the Legal Committee has been extended to deal with other legal matters within the scope of the IMO, and it has developed into a permanent institution of the IMO. The Legal Committee is composed of all IMO member states along with some observer delegations. It is also since the Torrey Canyon disaster that the activities of the IMO on oil pollution prevention and compensation have been greatly intensified and diversified.

It happens often that due to the difficulty in reaching agreements concerning draft conventions within the Legal Committee, a smaller group, which is called Working Group, will be set up to elaborate on difficult issues. The Working Group is often composed of interested delegations on a voluntary basis. The advantage of such a Working Group is that they meet informally in a smaller group and will only focus on some specific issues. This seems useful in facilitating the debate since otherwise there would not be sufficient time to address these issues in detail within the Committee.[21]

The delegations of governments are often professional civil servants or appointed experts. The IMO keeps official proceedings of the diplomatic conferences. However, these proceedings are limited to the official debates during the sessions and hence do not necessarily cover the whole process of the negotiations. Government representatives also meet officially or semi-officially outside the regular sessions of the Legal Committee, or even more privately, in order to build negotiating positions.[22] There are few delegates interested in recording the dynamics and complexity of debates or the reasoning behind particular decisions, and probably no one is capable of doing so. Gaskell described the work program of the IMO Legal Committee to be rather a matter of political choice of the member states (setting priorities, finding the balance between all the interests involved) than a real academic issue.[23]

Cleopatra Henry, The carriage of Dangerous Goods by Sea, the Role Of the International Maritime Organization in International Legislation, Frances Pinter (publishers), London, 1985, p37-57.

[21] Gaskell, N., Decision Making and the Legal Committee of the International Maritime Organization, Legislative Approaches in Maritime Law (Proceedings from the European Colloquium on Maritime Law), Oslo, 7-8 December 2000, p70-71.

[22] Gaskell, N., 2000, p41-91.

[23] Gaskell, N., 2000, p41-91.

2. The CMI

The Comité Maritime International (known as CMI) was formally established in 1897.[24] It is considered the first international organization exclusively concerned with the maritime field.[25] However, since the establishment of the IMO, the role of the CMI has changed and it acted mainly as a consultant for intergovernmental organizations.[26]

Though working as a non-governmental organization, due to its expertise, CMI has produced (before the existence of IMO) some influential legal rules for the maritime venture. Good examples are the Hague Rules 1924, the Visby Rules 1968 for maritime transportation as mentioned before, which now have become the prevalent rules for maritime transport of goods. It also adopted a number of conventions dealing with issues like collisions, salvage and assistance at sea and limitation of the shipowner's liability.[27]

Soon after the Torrey Canyon incident, the CMI established an International Torrey Canyon Sub-Committee and Working Group, chaired by Lord Devlin, to work in co-operation with the IMCO on private law issues related to oil pollution. It has produced a first draft of the CLC at the Tokyo Conference in April 1969 and submitted it to the Legal Committee of the Diplomatic Conference of the IMCO for consideration.[28]

3. Other international organizations

The CMI and the IMO are of course not the only international organizations that are active in the field of maritime legislation. There are still some organizations or UN agencies that should be mentioned as contributing to the development of international maritime law. The United Nations Conference on Trade and Development (UNCTAD) is the principal organ of the UN General Assembly in the field of trade and development, the United Nations Commission on International Trade Law (UNCITRAL) is a specialist legal body in charge of technical examination of legislation regulating international trade.

4. Industry organizations

In addition to these organizations dealing with legal issues in general, there are also some organizations representing different industries involved. The oil and the shipping industries have

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[24] The first conference of the CMI was held on 6th June 1897, which is often considered the starting time of the CMI. However, according to Griggs, P., in the archives of the Belgian Maritime Law Association, a circular letter dated 2nd July 1896 from the CMI can be found. This letter announced the creation of the CMI and proposed the constitution in each maritime nation of an Association of Maritime Law.

[25] Website of the CMI: www.comitemaritime.org

[26] Griggs, P., Uniformity of Maritime Law – A CMI Perspective, Legislative Approaches in Maritime Law, Proceedings from the European Colloquium on Maritime Law, Oslo, 7- 8 December 2000, p14 – 15.

[27] These include the International Convention for the Unification of Certain Rules relating to Collisions between Vessels 1910, the International Convention for the Unification of Certain Rules relating to the Limitation of Liability of Owners of Sea-going Vessels 1924, the International Convention relating to the Limitation of the Liability of Owners of Sea-going Vessels 1957. For more details, see Cleopartra Henry, The Carriage of Dangerous Goods by Sea: The Role of the International Maritime Organization in International Legislation, Frances Pinter (publishers), London, 1985, p37.

[28] De la Rue, C., Oil Pollution from Ships – Review of the Civil Liability and Fund Conventions, CMI Yearbook 2003, p576 – 580.

their respective industry organizations in response to the increasing public consciousness on marine pollution.

INTERTANKO is International Association of Independent Tanker Owners. Its members are independent tanker owners and operators of oil and chemical tankers (With "independent", it is meant non-oil companies and non-state controlled tanker owners as mentioned before).

OCIMF stands for Oil Companies International Marine Forum. It was founded on 8 April 1970 in London and was initially the response from the oil industry to the Torrey Canyon. Currently the members of the OCIMF comprise of 84 companies. OCIMF plays an important role in coordinating the oil industry's views concerning IMO legislation on tanker safety, navigation, cargo transfer and environmental protection. It has been granted a consultative status at IMO since 1971.

As mentioned before, the P&I Clubs organize themselves together through pooling agreement in an International Group. The role of the International Group is very interesting. As an observer at the IMO, the International group often intervenes in the debate of the Legal Committee, commenting or practical difficulties involved in proposed new regulations such as compulsory liability insurance. It is often confronted with the question if and how much the Clubs can provide in insurance coverage if a new or expanding liability is proposed or introduced. The Clubs are obviously often not willing to give specific answers to these hypothetical questions. They more particularly fear that if they would provide a certain amount for which they could provide cover, a lobbying and negotiation would result since the member states will hope to get a higher figure.[29]

These organizations, although acting as industry representatives, play an important role in developing legal rules concerning marine oil pollution.

IV. Definition of the problem

The sources of pollution into the marine environment are various, either from different pollutants or from different activities. Accidental pollution is only one source of oil pollution. Operational discharges also contribute to the pollution of the marine environment. Waste oil discharge related to operational activities constitutes a substantial source of pollution to the marine environment. Although disposal of wastes at sea and land-based pollution are also major sources of marine pollution, this research will mainly focus on vessel-source (mainly from navigation activities, but not the seabed activities like offshore petroleum exploration or exploitation, nor deep-ocean mining) hydrocarbons pollution to the marine environment. Moreover, it will focus on maritime casualties and not on the deliberate discharge of pollutants or operational discharge at sea.

The central goal of this research is to examine how the liability system for marine oil pollution damage is designed and has developed since its existence, whether it functions effectively and whether the aim of the system, being to fully compensate oil pollution victims has been

[29] Gaskell, N., 2000, p55-56.

accomplished and if such an aim is reached in an efficient way. Hence, the main elements of the current international regime will be examined in detail. These include, *inter alia*, the strict liability of the shipowner, the compulsory insurance, the limitation of liability and the channelling of liability. These elementary features of the international system on civil liability for marine oil pollution will be analysed from a historical, legal perspective and from economic perspective as well. The latter will also include an interest group analysis.

Moreover, it will further be examined in this thesis whether the aim of the liability system should be solely confined to the compensation of the oil pollution victims as stipulated in the conventions as a policy goal. This is a crucial issue as it is often argued in the economics literature that the liability system can provide incentives to the parties involved in the activity to take preventive measures. Hence, the liability system will also be examined in such a way to see if the preventive effect is necessary to be included in the liability system, and to what level the preventive incentive should be set so that the ultimate goal of social welfare can be reached in the sense that the total social costs of oil pollution incidents are minimized and the limited resources are being used in an efficient way.

The international regime on civil liability for marine oil pollution was established by the CLC and the Fund Convention. Although it has been widely accepted by most part of the world, the US constitutes a major exception to the international regime. There are also countries with incomplete compensation system (like China) since they have ratified the CLC, but not the Fund Convention. It is therefore valuable to examine the efficiency of the particular system in the US and China in comparison with the international system as a whole. Such a comparative study may allow us to indicate some advantages or disadvantages of various systems.

The US, as a powerful shipping country and an important oil importer at the same time, has played a very active role during the conferences prior to the conclusion of the international conventions. However, it did not ratify any of them, but adopted its own regime, the Oil Pollution Act of 1990, which deviates largely from the principles established in the international conventions. Hence, it might be interesting to examine why such a separate regional regime could come into being and how it survived all the changes at the international level. The existence of the US regime may pose the question on the efficiency or effectiveness of the two different regimes. A comparative study of these different systems may lead to an answer to this question and may provide some insight with respect to a better compensation to the pollution victims.

China represents a country with multiple and probably conflicting interests. It has a long coastline and strong shipping interest, and it has become the world's second oil consuming country and third oil importing country. China has only ratified the CLC so far, not the Fund Convention yet. On the other hand, Chinese government has made efforts towards establishing a domestic oil pollution compensation fund. An in-depth analysis may explain the particular reasons for the Chinese government's reluctance in joining the international fund.

The international regime, the US system and the particular system in China share certain

common features and also bear distinguished features respectively. A comparative study of these different legal systems may provide useful insight in the design of an optimal compensation system for marine oil pollution damage.

V. Limits of the research

1. At international level, various conventions exist to deal with compensation for marine pollution damage. For instance, there are conventions also addressing the compensation and civil liability for pollution damage caused by other polluting substances than oil, such as hazardous and noxious substances (HNS Convention) or bunker (Bunker Convention). Interestingly, the compensation regimes for other substances bear some similarities with the compensation regime for oil pollution damage. However, this thesis is limited to the discussion concerning the compensation regime for damage caused by oil pollution only, i.e. the regime established through the CLC and Fund Convention. Although the compensation for HNS or bunker spills is not the focus of this thesis, the result of this research may nevertheless be useful for the discussion on how to improve these regimes as well.

2. There is, in addition to the conventions with respect to compensation for marine pollution damage, also a whole set of rules dealing with the prevention of marine pollution damage in general and oil pollution more specifically. These regulations set up technical standards for the design and structure of the ships, rules for operations and professional criteria for the crews, with the goal to improve maritime safety and to reduce pollution incidents. With the development of modern technology, these preventive measures seem to be more and more technical and regulatory in nature. Describing and analyzing these rules would require a separate thesis and this is therefore beyond the research of this study. However, in order not to be blind for the existence of these rules aiming at prevention, in Chapter 3 a general overview of the regulations of marine pollution will be provided.

3. A state plays an important role with respect to marine environmental protection, not only because the state is the final decision-maker in implementing all kinds of international rules on maritime safety standards and preventive measures, but also in the event of a pollution incident or a threat of such incident, a state may intervene to prevent or mitigate the losses. Questions arise to what extent a state may take action against transboundary polluting activities which is often the case for marine pollution, and if and what liability may incur by a state for its non-action or non-effective action. However, this is again a topic that merits a completely different research. Hence, the role of a state including jurisdiction of a state to legislate and implement laws for marine pollution matters will only be briefly discussed in Chapter 3 in view of the whole legal framework for marine pollution.

4. Civil liability is not the only form of liability that may incur in a marine pollution incident. Under certain conditions, it may lead to criminal liability of certain parties. Recently this has caused heated debate at both European and international level. In the federal legislations in the US there is also provision concerning criminal liability for oil discharge.[30] However, this thesis

[30] For discussion on the criminal liability in the US legislation, see De la Rue, C. and Anderson, C., 1998, p909.

will be restricted to discussing the civil liability, and will not address the criminal liability aspect.

Chapter 3 Legal framework for vessel source marine pollution

I. Overview of the legal framework

1. General framework

Although the central topic of this thesis is civil liability for marine oil pollution, it is important to address the meaning of civil liability as one of the instrument to control oil pollution taking into account the existence of other legal instruments with a similar goal. Therefore in this chapter, the general legal framework for vessel source marine pollution will be analyzed. The role of civil liability for marine oil pollution damage will thus be examined within the context of the other legal instruments that equally address the marine pollution problem, and its relationship with other types of regulatory mechanisms (such as regulations on prevention, criminal liability) will also be examined.

As far as vessel source marine pollution is concerned, the laws and regulations at international level consist of a number of conventions which are relevant. There are conventions dealing with marine pollution caused by different pollutants originated from shipping activities, or with different stages of pollution before or after a pollution incident occurs, and those dealing with technical issues such as the design and operation of the vessel, safety of navigation and those focusing on human factors to the extent that the training of the seafarers and manning of a ship may influence the pollution risks.

First of all, a distinction can be made between the conventions dealing with the jurisdictional issues in general, and those specifically addressing the pollution issue from particular perspectives. The convention concerning general jurisdictional issue is mainly the United Nations Convention on the Law of the Sea 1982 (UNCLOS). The UNCLOS provides a jurisdictional framework for the adoption and implementation of safety rules and standards for vessel source marine pollution by defining the features and extent of a state's jurisdiction in different capacities.[1] On the other hand, there are some other conventions dealing with the specific issues related to marine pollution, which specify how state jurisdiction should be exercised so as to ensure compliance with the safety standards and anti-pollution regulations.[2] These conventions can also be categorized based on different criteria. For instance, there are conventions dealing with specific polluting media, such as oil, chemicals and other hazardous or noxious substances. In this respect, the International Convention for the Prevention of Pollution from Ships 1973 as modified by the Protocol of 1978 relating thereto (MARPOL73/78) deals

[1] It should be noted that in addition to the UNCLOS, there is another convention which is also relevant in this respect, being the International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties 1969 (the Intervention Convention) and the Protocol Relating to Intervention on the High Seas in Cases of Marine Pollution by Substances Other than Oil 1973 (referred to as the Intervention Protocol). Nowadays, the Intervention Convention is considered by many redundant as a result of the provisions of UNCLOS regulating the extension and regime of the different sea zones and the right of intervention to avoid pollution in Article 221. See Blanco-Bazán, IMO Interface with the Law of the Sea Convention, website of IMO: www.imo.org/InfoResource/mainframe.asp?topic od=406&doc id=1077.

[2] Implications of the United Nations Convention on the Law of the Sea for the International Maritime Organization, LEG/MISC/4, 26 January 2005, p8. It is a study first carried out by the IMO originally in 1986, and most recently updated in 2005.

with these pollutants respectively in separate Annexes, namely, Oil (Annex I), Noxious liquid substances in bulk (Annex II), Harmful substances carried by sea in packaged form (Annex III), Sewage (Annex IV), Garbage (Annex V). Annex XI deals with air pollution from ships.

If based on when the actors intervene or different stages of the pollution addressed by the conventions, they can be distinguished as those addressing prevention, response, and liability and compensation for pollution. In this respect, the main convention addressing prevention of pollution is MARPOL 73/78. Moreover, the conventions addressing prevention can also be categorized as those dealing with discharge standards; construction, design, equipment and manning (CDEM) standards; and restrictions and regulations related to navigation.[3] Based on such a criterion, MARPOL is the main convention regulating discharge standards; CEDM standards are mainly established through conventions such as the International Convention for the Safety of Life at Sea 1974 (SOLAS), the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (the STCW Convention); and the Convention on the International Regulations for Preventing Collisions at Sea 1972 (COLREGs) is the main convention related to the safety of navigation.

Concerning the response to a pollution incident, there is the International Convention on Oil Pollution Preparedness, Response and Co-operation 1990 (OPRC).[4] As for the liability for pollution damage, there are the Civil Liability Convention 1969/Fund Convention 1971 with subsequent Protocols, the Hazardous and Noxious Substance (HNS) Convention 1996 and the Bunker Convention 2001. All these conventions dealing with the civil liability and compensation for pollution victims, address the pollution caused by different substances, being oil, HNS and bunker respectively. It should also be noted that the CLC 1969 is losing its power and the 1971 Fund was terminated, and the prevailing scheme for oil pollution compensation consists of the 1992 Protocols, also referred to as the CLC 1992/Fund Convention 1992.[5] The HNS Convention is not in fore yet and the Bunker Convention will enter into force on 21 November 2008.

Table: International legal framework for vessel-source marine pollution

<table>
<tr><td colspan="4">International legal framework</td></tr>
<tr><td rowspan="2">General jurisdictional framework</td><td colspan="3">Specific issues</td></tr>
<tr><td>Prevention</td><td>Response</td><td>Liability and compensation</td></tr>
<tr><td>Intervention Convention 1969</td><td>Discharge standards: MARPOL 73/78</td><td rowspan="2">OPRC 1990</td><td>CLC/Fund</td></tr>
<tr><td>UNCLOS 1982</td><td>CDEM Standards: SOLAS, SCTW</td><td>HNS 1996 (not in force yet)</td></tr>
</table>

[3] Such a distinction is made by Bodansky, D., Protecting the Marine Environment from Vessel-Source Pollution: UNCLOS III and Beyond, Ecology Law Quarterly, 1991, Vol. 18, p728.
[4] LEG/MISC/4, 26 January 2005, p37.
[5] The conventions dealing with the damage resulting from oil pollution are dealt with in more detail in chapters 4 and 5.

	Safety of navigation: COLREGs		Bunker Convention 2001

2. Historical development

In order to better understand the current legal framework for marine pollution, it is useful to review at least briefly how they were developed in history.

Already in the 1950's, there were some early attempts to tackle the marine pollution problem at international level, such as the OILPOL 1954, the First and Second United Nations Conference on the Law of the Sea (UNCLOS I and II) in 1958 and 1960 respectively. However, these efforts to tackle the marine pollution were not particularly successful and they did not gain wide acceptance internationally. But to a large extent, they provide an important basis for the later development of international law. For instance, OILPOL 1954 turns out to be the predecessor for MARPOL on marine pollution prevention, and the four Geneva conventions on the law of the sea adopted by UNCLOS I in 1958 provide a basis for the conclusion of the 1982 UNCLOS. Nevertheless, the international legislation on marine pollution remains a slow process. This might also be explained by the prevailing maritime tradition of freedom of the sea and the exclusive control over vessels by the flag state whereby the imposition of international standards were resisted.[6]

It was probably until the occurrence of the Torrey Canyon incident in 1967 that the whole world began to realize the seriousness and urgency of the problem of marine pollution, and hence more initiatives were taken and as a result more influential international conventions were concluded in the years following the Torrey Canyon. At the diplomatic conference in 1969, two conventions were adopted to deal with the deficiencies indicated by the Torrey Canyon incident, namely, the Intervention Convention on the public law issue and the CLC on compensation. Later in 1971, the Fund Convention was adopted to complete the civil liability and compensation system for marine oil pollution.

When the civil liability regime for marine oil pollution was considered resolved at the time, the attention of the legislation turned to other issues such as prevention of pollution. Hence, after the conclusion of the international civil liability regime for marine oil pollution, other deficiencies indicated by the Torrey Canyon incident such as the problem with respect to the prevention of marine pollution was targeted by the MARPOL Convention, which was adopted in 1973 and later revised in 1978. That may explain why in the 1970's so many conventions were adopted to tackle the marine pollution problem, such as the SOLAS 74, MARPOL 73/78 and the STCW Convention 78. Meanwhile, during the period between 1973 and 1982, the Third UN Conference on the Law of the Sea was deliberating, and the finally adopted UNCLOS provides a jurisdictional framework for the marine pollution issues. Since its adoption, the UNCLOS has been accepted to be the "constitution of the oceans" and is often used as a reference for the

[6] Alcock, T., Ecology Tankers and the Oil Pollution Act of 1990: A History of Efforts to Require Double Hulls on Oil Tankers, Ecology Law Quarterly, 1992, Vol.19, p127.

elaboration of relevant conventions related to marine pollution.[7]

While these conventions were mainly concluded in the 1970's, major changes took place in the 1990's with the adoption of some important protocols. For instance, the liability and compensation regime for oil pollution damage was substantially changed in 1992 and it is only then that the current regime was formed. Moreover, major changes often took place as reaction to some catastrophic pollution incidents, which revealed the insufficiency of the existing systems.[8] Then the question arises if it is the design of the conventions, e.g. the pollution standards and the enforcement measures prescribed in the conventions are not effective, or if it is the implementation and compliance of these conventions that is the major problem. This will be analyzed in Chapter 9 of the thesis.

II. Port state control

1. Introduction

A first important issue the UNCLOS deals with is which state has jurisdiction to regulate ships. Given that ships are mobile and are bound to visit many legal systems, this is in practice an important issue. Moreover, given the different interests at stake the question which state has jurisdiction will in practice often also have an influence on the contents of the legal rules. Hence, the jurisdiction question is certainly more important than a mere matter of formality or procedure.

2. Flag state jurisdiction

2.1 Prescriptive jurisdiction

Traditionally in maritime law, it has always been the flag state (the state where a ship is registered and whose flag it is entitled to fly) that has the jurisdiction over ships flying its flag. The UNCLOS also confirms such a principle.

Article 94 (1) of the UNCLOS stipulates that every state "shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag". Hence, the primary jurisdiction over a ship and hence the pollution it may cause lies with the flag state.[9] Article 94(3) and (4) of UNCLOS further requires flag states to take necessary measures to ensure safety at sea in respect of construction, equipment and seaworthiness of ships, manning of ships and use of signals;[10] and to ensure appropriate survey of ships, appropriate qualifications of the crew.[11]

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[7] Weinstein, E., The Impact of Regulation of Transport of Hazardous Waste on Freedom of Navigation, International Journal of Marine and Coastal Law, 1994, Vol. 9, p155.
[8] Molenaar, E. J., Coastal State Jurisdiction over Vessel-Source Pollution, The Hague, Kluwer Law International, 1998, p20.
[9] Molenaar believed that although it is provided in the section on the high seas, the effect should go beyond the high seas. See Molenaar, E. J., 1998.
[10] Article 94 (3) of UNCLOS.
[11] Article 94 (4) of UNCLOS.

Article 94 (5) of UNCLOS explains that the necessary measures mentioned in Article 94(3) and (4) shall conform to "generally accepted international regulations, procedures and practices". Article 211 dealing specifically with "pollution from vessels" provides in section (2) that the flag state shall adopt laws and regulations for the prevention, reduction and control of marine pollution caused by ships flying their flags. It also specifies that such laws and regulations "shall at least have the same effect as that of generally accepted international rules and standards established through the competent international organization or general diplomatic conference". In this respect, based on the worldwide acceptance of the conventions, the IMO (as the "competent authority" referred to in the UNCLOS) explains it to include, *inter alia*, the SOLAS Convention, the International Convention on Load Lines 1966 (Load Lines Convention), the International Convention on Tonnage Measurement of Ships 1969 (Tonnage Convention), the COLREG, the STCW Convention and the International Convention on Maritime Search and Rescue (SAR).[12] According to Birnie and Boyle, the effect of provisions in Article 94 is to make conventions such as MARPOL and other relevant international standards an obligatory minimum.[13] However, in reality, the flag states will hardly prescribe more severe standards than what is required by the international rules. A flag state may not be willing to do so because if their national rules were too strict compared with the international standards, their fleet might choose to flag out to states with more lenient domestic controls.[14]

2.2 Enforcement jurisdiction

Article 217 of UNCLOS further provides that in case of violation, the vessel shall be prohibited from sailing by the flag state.[15] However, due to economic considerations, one may wonder if a flag state will actually exercise such power with regard to its own fleet. Moreover, given the fact that the pollution caused by a vessel is often outside the territory of its registered country and may influence the marine environment of other states, the incentives for a flag state to enforce may be rather low, not to mention the (probably low rate) detection activities by a flag state. The practice of flags of convenience (which will be discussed below) even worsens the scenario. The existence of these so-called open registry or flag of convenience states has become a common practice nowadays, and their control as a flag state over vessels registered there or flying their flags is often criticized to be too lenient.

UNCLOS does provide for the right of other states to request the flag state to investigate any alleged violation.[16] However, the chances of other states to have access to such a ship whereby the violation may be detected are restricted, and shall be examined in view of the coastal state and port state jurisdiction. Probably only when a ship voluntarily enters a port, may the port state have the opportunity to inspect the ship. Moreover, the flag state shall only "promptly inform the requesting state" of its action and outcome.[17] In case of non-action of the flag state, there seems

[12] LEG/MISC/4, 26 January 2005, p10-11.
[13] Birnie, P. and Boyle, A., International Law and the Environment, London, Oxford University Press, 2002, p370.
[14] Birnie, P. and Boyle, A., 2002, p370.
[15] Article 217 (2) of the UNCLOS.
[16] Article 217 (6) of the UNCLOS.
17 Article 217 (7) of the UNCLOS.

to be no remedy in the UNCLOS.

Therefore, the enforcement of international safety regulations relying on the exercise of flag state jurisdiction, irrespective of where the ship is sailing, proves a very weak enforcement mechanism.

2.3 Flag of convenience

Article 91 of UNCLOS refers to the need for a "genuine link" between the state of nationality and the ship. However, this ambiguous provision has not prevented the emergence of flag of convenience (FOC), where registration, rather than ownership, management, nationality of the crew, or the ship's operational base, is the only substantial connection.[18] The practice of flags of convenience has a long history of centuries. It probably dates back to the 16th century, and has been widely used and become a general practice at the beginning of the 20th century. It is often used to overcome political restrictions or for economic benefits.[19]

Flags of convenience have been a source of controversy in the maritime practice for a long time. Around 54% of the world's tonnage is registered with the open registry states thus flying a flag of convenience.[20] Lots of the pollution incidents, especially oil spills are often caused by tankers registered in open registry states. The Erika and Prestige are examples of some recent cases of this sort. Nevertheless, it may be unfair to relate FOC automatically to substandard ships, albeit that the ships flying FOC flags often have poor safety records.

Nowadays the major tanker fleets according to the flags they are flying are from Greece, Panama, Liberia, the Bahamas, Norway, Malta and Japan.[21] The US was once the major tanker owner country. It owned almost 60% of the world's tanker fleet in 1946; now it owns less than 5% of the world's tanker fleet. Countries with an open registry policy have attracted more tanker fleets. These include countries like Panama, the Bahamas and Liberia. Greece and Norway still own a certain percentage of the tanker fleets as well. The size of the tanker fleet might have different influence on the decision of the flag state concerning maritime safety or relevant issues as will be shown through the later analysis.

2.4 Evaluation

Already at first blush, one can understand that probably not too much should be expected from the flag state as far as the control of polluting activities from their ships is concerned. One major problem is that the interest of the flag state is more an economic one. A state may enjoy the economic benefits (in taxes) from ships registered in that state and not worry too much about damage that could occur elsewhere. This is a typical example of the externality problem as

[18] Birnie, P. and Boyle, A., 2002, p360.
[19] For an analysis of the history of flag of convenience, and in particular that of the two traditional open registry states, Panama and Liberia, see Llácer, F. J. M., Open Registers: Past, Present and Future, Marine Policy, 2003, Vol. 27, p513-523; see also Özçayir, Z.O., Flags of Convenience and the Need for International Co-operation: A View from the Bosphorus, International Maritime Law, 2003, Vol.7, p111-117.
[20] Llácer, F. J. .M., 2003, p513.
[21] Website of the INTERTANKO: www.intertanko.com.

indicated by economists: flag states like Liberia or Panama may have very little incentives to impose stringent regulations to prevent pollution from ships sailing under their flags, more particularly if that pollution does not occur in front of their states, but for example in Europe or China. Nevertheless, UNCLOS has imposed "formally" serious obligations on flag states with respect to the control of ship safety.

A flag state under UNCLOS may prescribe requirements with regard to construction, design, equipment and manning of vessels, and enforce such rules. This only sets up minimum standards for a flag state. In theory, a flag state may adopt more stringent rules than the international conventions. However, few states have done so. This might be explained by the transboundary externality, and the fact that the enforcement mechanism as stipulated in the UNCLOS does not offer sufficient incentive for a flag state to effectively implement the international rules upon ships registered therein.

Moreover, the flag state jurisdiction prescribed in the UNCLOS does not go further beyond what MARPOL has already demanded. Some argued that the flag state jurisdiction serves as a safeguard for the enforcement of international rules, particularly in waters beyond the national jurisdiction of the coastal state, i.e. on the high seas.[22] This seems a too optimistic view.

3. Coastal State jurisdiction

3.1 Overview

The jurisdiction of a coastal state over vessel source marine pollution varies with its sovereign rights over the maritime zones, despite the fact that there is no clear definition of a coastal state in the UNCLOS.

Different than a flag state, a coastal state may be concerned with pollution caused to their states of which they are the primary victim. Hence, coastal states may to the contrary have all the incentives to impose very severe restrictions upon ships sailing within their waters. A problem that could arise in this respect is that those limitations could go further or could be different than what other countries require, in which case regulations by the coastal state could effectively restrict the free navigation. Hence, one important goal of the UNCLOS was to restrict the possibilities for coastal states to impose unilaterally far-reaching pollution control regulations which would effectively limit free navigation. Therefore, the adoption of the EEZ is considered a compromise between the more extensive claims of coastal states for environmental protection and the concerns of maritime states for free navigation.[23]

[22] De la Fayette, L., Access to Ports in International Law, International Journal of Marine and Coastal Law, 1996, Vol.11, p13.

[23] Birnie and Boyle pointed at the fact that at the UNCLOS III concerning the issue of EEZ, there were at least two groups, one represented by Canada and Australia and supported by majority of the developing states sought for a general extension of coastal state legislative and enforcement jurisdiction beyond the relatively limited changes brought about by the MARPOL. On the other hand, there was a group of maritime states. Once the coastal states abandoned their support for a much broader margin of territorial sea, maritime states were prepared to accept the principle of extended jurisdiction for specific purposes. See Birnie, P. and Boyle, A., 2002, p373.

3.2 Internal waters and ports

The coastal state is empowered to determine the conditions of entry for foreign vessels into their ports or internal waters.[24] The rationale for such a provision is that a port is situated in a state's internal waters, which forms part of its territory. Since internal waters are assimilated to the territory of a state, a port is subject to the state's full territorial sovereignty.[25]

This right is recognized in some other conventions than the UNCLOS. For example, the SOLAS Convention provides that port authorities may withhold permission to dock if a ship does not comply with the requirement of carrying its safety certificates, the MARPOL Convention recognizes that a state may deny access for a foreign tanker to its ports if there is clear ground to believe that she does not comply with the provisions in the MARPOL Convention.[26]

The coastal state's right to impose its own requirements as conditions for foreign vessels to enter its port or internal waters has been well made use of by e.g. the US. In the Oil Pollution Act 1990, the US has legitimately imposed more severe tanker structure conditions, such as double hull for a tanker in order to enter its port. This was originally opposed by some industry lobby groups in the beginning and some oil giants even threatened to lower the amount of oil they would import into the US. [27] However, none of this really happened. And indeed, thanks to such a strict requirement, the tankers entering US ports are equipped with double hull which will reduce the risk of spilling oil in case of an incident. The result is that the tankers not equipped with double hulls transferred their trade area to other parts of the world, including Europe and Asia. The EU, after witnessing some dramatic oil spill incidents (particularly the Erika and the Prestige incidents which were both caused by single-hull tankers), also decided to promote double-hull tankers and to accelerate the schedule to phase out the single-hull tankers which was more vigorous than the international schedule. Under the stress of the EU activism to phase out the single-hull tankers earlier, the IMO decided to accelerate the schedule to phase out single-hull tankers on a worldwide scale. This is a typical example how the coastal state's legislations interact with the international laws.

3.3 Territorial sea

The UNCLOS empowers the coastal states to adopt their national standards and anti-pollution measures within their territorial sea.[28] The coastal states may thus for instance designate

[24] Article 211 (3) of UNCLOS. The only exception is for vessels in distress, which have a right to take refuge in the nearest port.
[25] For an analysis of the coastal state's right to lay down conditions for entry into its ports, see De la Fayette, L., 1996, p1-22.
[26] De la Fayette, L., 1996, p5.
[27] Weinstein, P., 1994, p139.
[28] Article 21 (1) of UNCLOS provides that "The coastal State may adopt laws and regulations, in conformity with the provisions of this Convention and other rules of international law, relating to innocent passage through the territorial sea, in respect of all or any of the following:…(f) the preservation of the environment of the coastal State and the prevention, reduction and control of pollution thereof". Further Article 211 (4) also contains provision on the coastal state jurisdiction. It reads "Coastal States may, in the exercise of their sovereignty within their territorial sea, adopt laws and regulations for the prevention, reduction and control of marine pollution from foreign vessels, including vessels exercising the right of innocent passage. Such laws and regulations shall, in accordance with Part II, section 3, not hamper innocent passage of foreign vessels."

particular sea lanes or regulate the passage of ships through the traffic separation system.[29]

However, this right is not unrestricted. UNCLOS also lays down some restrictions for the coastal state to exercise such power. First, it should not impair the right of innocent passage of foreign ships or discriminate against ships of any state or ships carrying certain cargoes.[30] Hence, the coastal state may not simply close the territorial waters, even where the cargo carried by a foreign vessel presents a potential environmental risk, as in the case of HNS or oil tankers. According to the UNCLOS, the most a coastal state could do is probably to take certain precautionary measures to minimize the risks: it may, e.g. require ships carrying inherently dangerous cargo to confine their passage to specified sea lanes.[31]

Second, the coastal state does not have the right to adopt laws and regulations on CDEM standards "unless they are giving effect to generally accepted international rules or standards", although they may do so in respect of discharge standards.[32] This is probably due to the consideration that CDEM standards have greater impact on the right of free navigation than some other standards (for instance the discharge standards).[33]

As for the enforcement by a coastal state in its territorial sea, UNCLOS provides in Article 220 (2) that only where "there are clear grounds" to believe that a vessel when passing the territorial sea has violated the coastal state's laws, the coastal state may "undertake physical inspection of the vessel" and when evidence warrants it may institute proceedings including detention of the vessel. However, as the practical exercise of a right to arrest ships in passage poses serious danger to the freedom of navigation, it is rarely used as a means of enforcing anti-pollution measures.[34]

Hence, it seems a coastal state's jurisdiction in the territorial sea is a compromise: the coastal state is empowered to control the pollution and navigation to a certain extent, while the innocent passage enjoyed by foreign vessels remains intact.[35]

3.4 EEZ

Prior to UNCLOS, the area beyond the territorial sea was the high seas and it was subject to virtually exclusive jurisdiction of the flag state. UNCLOS has changed the situation by introducing a new maritime zone referred to as the exclusive economic zone (EEZ), which extends to 200 nautical miles from the territorial sea baseline.[36] In the EEZ, a coastal state enjoys sovereign rights over the natural resources and jurisdiction for the protection and preservation of the marine environment.[37] This jurisdiction of a coastal state for vessel-source

[29] Article 22 (1) of UNCLOS.
[30] Articles 24 (1) and 211 (4) of UNCLOS.
[31] Article 22 (2) of UNCLOS.
[32] Article 21 (2) of UNCLOS.
[33] Bodansky, D., 1991, p750.
[34] Birnie and Boyle pointed our that for the purpose of enforcing anti-pollution measures in the territorial sea, port state is often called upon as a preferred alternative to coastal state. See Birnie, P. and Boyle, A., 2002, p372.
[35] Birnie, P. and Boyle, A., 2002, p372.
[36] Articles 55 and 57 of UNCLOS.
[37] Article 56 of UNCLOS.

marine pollution in the EEZ is restricted to the adoption and enforcement of laws and regulations "conforming to and giving effect to generally accepted international rules and standards" established through the competent international organization.[38]

It should be noted that the EEZ regime adopted by the UNCLOS preserves within the EEZ the freedom of navigation which is enjoyed by all states also on the high seas, rather than the more restrictive right in the territorial sea of innocent passage. Coastal states acquire responsibility for regulating pollution from seabed installations, dumping and other activities within the EEZ, but their regulatory jurisdiction over vessel-source pollution is limited to the application of international rules for enforcement purposes only.[39]

When there are "clear grounds" for believing a vessel has committed a violation in the EEZ, the coastal state "may require the vessel to give information regarding its identity and port of registry, its last and its next port of call and other relevant information required to establish whether a violation has occurred".[40] However, such enforcement by the coastal state in the EEZ is not without limitation. First, the coastal state may exercise its power over EEZ pollution control only when the vessel is still navigating in its EEZ. Second, the power of the coastal state is limited to a request for information. Only when the vessel has caused or threatens to cause significant pollution of the marine environment, the coastal state may undertake physical inspection of the vessel.[41]

Therefore, Bodansky believed that coastal state enforcement of the EEZ vessel-source pollution legislation is the least favored option under UNCLOS and is permitted only when it threatens substantial damage to the coastal state. Otherwise, the remedy for a coastal state is to inform the flag state or the next port of call of the possible violation, so that these states may take actions to investigate or institute proceedings.[42]

Another observation concerning the coastal state's jurisdiction in the EEZ is that the UNCLOS provisions leave coastal states considerable latitude in determining what action is justified in individual cases. This may lead to uncertainty and inconsistency in their use.[43] Moreover, the competence enjoyed by coastal states in the EEZ is weaker than that in the territorial sea in this respect. For example the coastal state may undertake physical inspection for violation occurring in the territorial sea while for the violation in the EEZ the coastal state may only request for information. As a result, the coastal state's competence in the EEZ may seem an expansion beyond the territorial sea, but it is actually not as far-reaching as it seems, the coastal state's competence in the EEZ remains circumscribed.

[38] Article 211 (5) of the UNCLOS.
[39] Articles 208, 210, 211 (5) and (6) of UNCLOS.
[40] Article 220 (3) of UNCLOS.
[41] Article 220 (5) of the UNCLOS.
[42] Bodansky, D., 1991, p757-758.
[43] Birnie, P. and Boyle, A., 2002, p375.

3.5 High seas

The high seas are free from claims of sovereignty, no state has jurisdiction there, only the flag state may have jurisdiction over its ships navigating on the high seas.[44] The flag state has exclusive jurisdiction if a ship causes pollution on the high seas, and the coastal state is not allowed to take action unless it is threatened by the damage. This is provided in Article 221 of UNCLOS: in case of a maritime casualty, the coastal state is empowered to take measures beyond the territorial sea, including on the high seas, to the extent that such measures are proportionate to the actual or threatened damage.[45]

3.6 Evaluation

Depending on the different maritime zones, the competence of a coastal state varies. Basically, with the distance further away from the coast, the coastal state's right to interfere with foreign ships gets weaker. By delimiting the concepts of different maritime zones, the UNCLOS in a way creates a certain barrier for a coastal state to expand its claims.[46]

The concepts adopted in the UNCLOS for coastal state jurisdiction are the result of balance striking between different interests. For instance with respect to the jurisdiction in the territorial sea, UNCLOS offers coastal states the power to control navigation and pollution, while preserving the rights of passage and international control of CDEM standards.[47] The territorial sea under the UNCLOS is extended in breadth. Obviously, such an extension in itself is not enough to satisfy the need of coastal states for environmental claims. This is particularly the case for environmental incidents occurring outside the territorial waters. Hence, the UNCLOS goes beyond the territorial sea by giving coastal states the pollution control jurisdiction in a new zone created through the UNCLOS, being the EEZ. The adoption of the EEZ is thus also a compromise between the more extensive claims of coastal states for environmental protection and the concerns of maritime states for free navigation.[48]

The provisions of the UNCLOS are believed to set up maximum standards that a coastal state may apply to foreign ships in its EEZ and territorial sea as far as the construction, design, equipment and manning standards of ships are concerned. This is in contrast to other parts of UNCLOS where the adopted rules generally contain minimum standards which a state must apply.[49] Hence, the discretion left to a coastal state may be rather limited in this respect. This again shows that UNCLOS has attempted to strike a balance between the shipping interests (of free navigation) and the interests of pollution control (by coastal states). The question is then whether it is not possible to provide another solution within this trade-environment conflict between shipping interests and interests of victim (coastal) states. To some extent, that is

[44] Weinstein, P., 1994, p144.
[45] This provision is similar to those in the Intervention Convention.
[46] Kolodkin, A. L, Andrianov, V. V. and Kiselev, V. A., Legal Implications of Participation or Non-participation in the 1982 Convention, Marine Policy, 1988, Vol.12, p187.
[47] Birnie, P. and Boyle, A., 2002, p372.
[48] Birnie, P. and Boyle, A. 2002, p373.
[49] Nollkaemper, A. and Hey, E., Implementation of the LOS Convention at Regional Level: European Community Competence in Regulating Safety and Environmental Aspects of Shipping, International Journal of Marine and Coastal Law, 1995, Vol.10, p284-285.

particularly the reason why to a large extent UNCLOS now relies on port state jurisdiction.

4. Port state jurisdiction

4.1 UNCLOS provision

A major difference between awarding jurisdiction to coastal states and to port states is that coastal states may have merely an interest in issuing restrictive pollution control regulations on ships, thus limiting free navigation within their waters, whereas port states may have a more balanced interest. To an important extent, the interest of port states can be aligned with the interests of shipping nations since ports clearly have interests as well (more vessels calling a port normally means more economic benefits for the port state). On the other hand, port states can be coastal states as well and thus can also be victimized by pollution incidents. One can therefore notice, as will be explained below, an important shift from merely flag state control towards port state control.

It was recognized at the UNCLOS III negotiations that the problem of non-compliance with international laws and regulations could not be remedied by flag state enforcement alone. One major conflict of interests at the time was that the maritime states wanted to maintain the freedom of navigation as much as possible, while the coastal states wanted more power for anti-pollution legislation and enforcement. To allow coastal states more authority to arrest and prosecute vessels for pollution offences e.g. to stop and board a vessel navigating in the EEZ, may present a threat to the freedom of navigation. Thus, port state control appeared to be a more attractive alternative. As long as the vessel is in port and is allowed to proceed to sea subject to financial guarantee,[50] the investigation and prosecution by the port state does not constitute a serious threat to the free navigation right. Moreover, it eliminates the need for reliance on the flag state. Hence, port state control was adopted as a corrective measure to remedy the inadequacy of flag state jurisdiction.

Article 218 of UNCLOS gives the port state the express power to investigate and institute proceedings against violations even when the discharges occurred "outside the internal waters, territorial sea or exclusive economic zone".[51] In contrast, a coastal state's jurisdiction in the territorial sea and the EEZ has always been limited to certain extent.

The exercise of port state jurisdiction for the purpose of correcting deficiencies in the implementation (particularly by flag state) of safety rules is established in the main IMO conventions. These include, *inter alia*, Load Lines Convention 1966, Tonnage Convention 1969, SOLAS Convention, MARPOL Convention and the STCW Convention. These conventions provide that the port state is entitled to verify the certificates of vessels attesting compliance with safety provisions. They also empower the port state to inspect the ship if the certificates are not in order or if there are clear grounds to believe that the condition of the ship or of its equipment does not correspond substantially with the particulars of the certificates or if they are not

[50] Articles 220 (7), 226 (1)(b) and 292 of UNCLOS.
[51] Article 218 (1) of UNCLOS.

properly maintained.

Another point concerning Article 218 is that the competence of the port state is to prosecute discharges in violation of "applicable" rules and standards. This raises the question what kind of rules are "applicable" as far as port state enforcement is concerned. One conservative view is that if the flag state or operating authority state of the vessel in question is not a party to certain convention, the port state may not enforce such laws against the vessel.[52] Another expansive interpretation of Article 218 is that port state may enforce international discharge standards against any vessel, regardless of whether the flag state has accepted or prescribed these standards.[53] This has become a generally accepted view in recent years of practice.[54] The port state enforcement of international laws dealing with maritime safety and pollution prevention has thus become an important factor in strengthening the international standards.[55]

4.2 MOUs

Port state control is co-ordinated regionally on the basis of a Memorandum of Understanding (MOU) signed by the government administrations concerned. In addition to the well-known Paris MOU which mainly concerns Western European countries and Canada, there are MOUs for regions including: Latin America (Vina del Mar Agreement 1992), the Asia and the Pacific (Tokyo MOU, 1993), the Caribbean (1996), the Mediterranean (1997), the Indian Ocean (1998), West and Central Africa (Abuja MOU, 1999) and the Black Sea (2000).[56] These MOUs do not create new conventions, but are only an administrative framework for cooperation among the states involved.

The MOUs require certain inspection rate on an annual basis. The MOU states also share an information system and they select ships for special controls once they are in ports of MOU states based on certain criteria, such as the hazards the special types of ships may pose and the risks that certain flags may pose.[57] Information about substandard ships is systematically exchanged among these states so that, for example, restrictions on port entry imposed by one port state cannot be readily circumvented by entry to another.

4.3 Evaluation

The notion of port state jurisdiction was initially developed by the IMO as a remedy to correct deficiencies in the exercise of flag state jurisdiction resulting in non-compliance with safety and antipollution regulations by foreign ships voluntarily in port. The use of port state control as a means of eliminating sub-standard shipping is considered a positive step in the development of

[52] Bodansky, D., 1991, p761.
[53] See De la Fayette, L., 1996, p14; Birnie, P. and Boyle, A., 2002, p375.
[54] MARPOL Convention also provides in Article 5 that port state control over certificates shall be applied to the ships of non-parties "as may be necessary to ensure that no more favourable treatment is given".
[55] Birnie, P. and Boyle, A., 2002, p376.
[56] For an analysis of the port state control procedures, see Kiehne, G., Investigation, Detention and Release of Ships under the Paris Memorandum of Understanding on Port State Control: A View from Practice, International Journal of Marine and Coastal Law, 1996, Vol.11, p217-224.
[57] Kiehne, G., 1996, p221.

marine pollution control.[58] Especially given the practice of flag of convenience in the shipping industry (shipowners may register their vessels under the flags of open registry such as Liberia, Panama or Cyprus, as a means of avoiding the more stringent survey and certification requirements by traditional maritime states), effective port state control may be useful in eliminating such deficiencies.[59]

Port state control may have the advantage that it can ensure prosecution for violation where the flag state is reluctant to do so, and/or where the coastal state is unable or incompetent to act. One result of awarding the port state the jurisdiction to deal with pollution incidents on the high seas is that the flag state no longer enjoys exclusive jurisdiction over all high seas offences. The port state jurisdiction is thus considered a form of universal jurisdiction, concurrent with that of the flag state.[60] However, this is not concurrent jurisdiction in the ordinary sense, where either party is entitled to prosecute. Except in cases of major damage to coastal state, the flag state under the UNCLOS has in all cases a right of pre-emption which enables it to insist on taking control of any prosecution. It must continue the proceedings, and it loses the right if it repeatedly disregards its obligation of effective enforcement of international regulation. Nevertheless, in most cases it remains the flag state which will determine whether proceedings by coastal states or port states are to be allowed.[61]

Nollkaemper and Hey argue that the UNCLOS imposes minimum standards for the prescriptive jurisdiction of port states and it imposes certain maximum standards for the enforcement jurisdiction of port states. (Article 211 (3)) For example, a port state's enforcement jurisdiction with respect to violations committed beyond its territorial sea by a ship flying a foreign flag and which is in one of its ports is limited to violations of applicable international rules and standards (Article 218 (1)) as well as by certain safeguards (Article 218 (4) and 223-233). The latter ensures that the flag state is the primary entity responsible for instituting proceedings against ships flying its flag, or if the proceedings relate to a case of major damage to the coastal state (Article 228).[62]

5. Summary

The above analysis implies that a state in different capacity as a flag, coastal, or port state may have different degrees of power to enforce the international laws and regulations on vessel-source marine pollution. However, such a distinction may be useful only for purposes of analysis. Especially the distinction between coastal state and port state is more legal than practical. Moreover, a state may have various interests at stake. In addition, when a state ratifies an international convention, it does not do so in its capacity as a coastal or a port state. The relevant international rules are to be applied by a flag state as minimum standards and by a

[58] Wonham, J., Some Recent Regulatory Developments in IMO for Which There Are Corresponding Requirements in the United Nations Convention on the Law of the Sea – A Challenge to be met by the States Parties? Marine Policy, 1996, Vol. 20, p378.
[59] Wonham, J., 1996, p382.
[60] Birnie, P. and Boyle, A., 2002, p376.
[61] Birnie, P. and Boyle, A., 2002, p376-377.
[62] Nollkaemper , A. and Hey, A., 1995, p291.

coastal state or port state as maximum standards.[63]

In most conventions concerning vessel-source marine pollution as in the UNCLOS, it is the flag state that should be primarily responsible for the implementation of the conventions. They have obviously failed in many cases, especially given the lenient control from some open registry states. Lord Donaldson's inquiry also suggested that using the flag state would be the ideal means of enforcing standards, but due to its insufficiency, port state control should be strengthened as an insurance policy for states which receive a large tonnage of foreign-flagged ships.[64]

In contrast to the situation with coastal state jurisdiction, the most important IMO conventions include provisions which regulate the features of port state jurisdiction and the extent to which such jurisdictions should be exercised. Port state jurisdiction is essentially a concept of corrective nature since it aims to correct the non-compliance or ineffective flag state enforcement of IMO regulations by foreign ships voluntarily in port.

The continuing occurrence of pollution incidents revealed another problem with the international regime, being the effective application of the existing conventions. So the effective implementation and compliance by state parties and private parties whose behaviour they regulate has become the focus of the international legal framework on transboundary vessel-source marine pollution since recent years.[65] The analysis also indicated that the current legal regime does not provide sufficient incentive for the flag state as the primary actor to implement international rules and standards. The coastal state jurisdiction varies with the maritime zones. However, it has always been circumscribed somehow mainly in order to avoid the infringement on the right of free navigation. The port state control hence should be strengthened to remedy the insufficient incentive prescribed for the flag state. As suggested by Bodansky, the port state has both economic and environmental interests at stake. Hence, it has more chance to strike a better balance between the various interests.[66]

III. Legal regimes concerning prevention and response

1. MARPOL 73/78

The MARPOL Convention is the main international convention covering the prevention of pollution of the marine environment by ships from operational or accidental causes. The articles of the Convention mainly deal with jurisdiction, powers of enforcement, and inspection. The more detailed anti-pollution regulations are contained in Annexes. The MARPOL Convention regulates pollution by setting construction standards, which are more stringent for new vessels.

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[63] Nollkaemper, A. and Hey, A., 1995, p291.
[64] Warren, L.M. and Wallace, M. W., The Donaldson Inquiry and its Relevance to Particularly Sensitive Sea Areas, International Journal of Marine and Coastal Law, 1994, Vol.9, p525, 553.
[65] See also De la Fayette, L., The Marine Environment Protection Committee: The Conjunction of the Law of the Sea and International Environmental Law, International Journal of Marine and Coastal Law, 2001, Vol.16, p221.
[66] Bodansky, D., 1991, p739.

2. SOLAS Convention

The International Convention for the Safety of Life at Sea 1974 (SOLAS) is the principal convention dealing with maritime safety through the CDEM standards and navigation standards. It is intended to minimize the risk of maritime accidents by regulating navigation and seaworthiness standards. It was amended in 1978 through the 1978 Protocol which makes the use of certain additional safety features mandatory for oil tankers and other large vessels, both for safety of navigation and pollution prevention purposes.

Another important SOLAS amendment which entered into force in 1998 makes compliance with the International Safety Management Code (ISM Code) mandatory, *inter alia*, for all oil and chemical tankers. Ships can only be certified by the flag state if the operating company (this may be the owner, charterer, or manager) has in place safety and environmental policies, instructions, and procedures in accordance with the ISM Code. The underlying assumption is that operating companies are best able to ensure that ships meet adequate operational standards. Shipping companies whose vessels do not do so will be unable to operate. Some 78% of the ships were thought to comply at the time when the ISM Code entered into force.[67]

3. STCW Convention

The International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 1978 (the STCW Convention) was adopted on 7 July 1978, and entered into force on 28 April 1984. The STCW Convention established internationally the minimum requirements on training, certification and watchkeeping for seafarers. One important feature of the STCW Convention is that it applies to ships of non-party states when visiting ports of states which are parties to the Convention. Article X requires parties to apply the control measures to ships of all flags to the extent necessary to ensure that no more favourable treatment is given to ships entitled to fly the flag of a state which is not a party than is given to ships entitled to fly the flag of a state that is a party.

The STCW Convention was amended in 1995.[68] The revised Chapter I includes enhanced procedures concerning the exercise of port state jurisdiction to allow intervention in the case of deficiencies deemed to pose a danger to persons, property or the environment (regulation I/4). This can take place if certificates are not in order or if the ship is involved in a collision or grounding, if there is an illegal discharge of substances (causing pollution) or if the ship is manoeuvred in an erratic or unsafe manner. Other amendments to the STCW Convention include the 1997, 1998 and 2006 Amendments.

4. OPRC Convention

In 1989, at the call of some leading industrial nations, the IMO worked on a convention aimed at providing a global framework for international cooperation in combating major incidents or threats of marine pollution. This led to the adoption of the International Convention on Oil

[67] Birnie, P. and Boyle, A., 2002, p361.
[68] The 1995 Amendments were adopted on 7 July 1995, and entered into force on 1 February 1997.

Pollution Preparedness, Response and Co-operation 1990 (OPRC Convention) on 30 November 1990. The OPRC Convention entered into force on 13 May 1995. The Convention is designed to facilitate international cooperation and mutual assistance in preparing for and responding to a major oil pollution incident and to encourage states to develop and maintain an adequate capability to deal with oil pollution emergencies.

Parties to the OPRC Convention are required to establish measures for dealing with pollution incidents, either nationally or in cooperation with other countries. Ships are required to carry onboard an oil pollution emergency plan.[69] Ships are also required to report incidents of pollution to coastal authorities and the Convention details the actions to be taken. It calls for the establishment of stockpiles of oil spill combating equipment, the holding of oil spill combating exercises and the development of detailed plans for dealing with pollution incidents.

This Convention was amended in 2000 which extends the coverage to hazardous and noxious substances other than oil (Protocol on Preparedness, Response and Co-operation to Pollution Incidents by Hazardous and Noxious Substances 2000, known as the HNS Protocol).[70]

IV. Legal regime on civil liability and compensation

1. CLC/Fund

The conventions dealing with liability for oil pollution damage and compensation for pollution victims are the CLC 1969 and the Fund Convention 1971. These two conventions have been amended several times. The compensation regime is the central focus of this thesis. Hence, it will be analysed further in detail in the following chapters.

2. HNS Convention

In 1984 the IMO convened a conference to consider a new instrument dealing with compensation for accidents involving hazardous and noxious substances (HNS). However, the issue turned to be so complex that the attempt had to be abandoned. It was not until 1996 that the matter could be considered again, and this resulted in the adoption of the International Convention on Liability and Compensation for Damage in connection with the Carriage of Hazardous and Noxious Substances by Sea (HNS Convention) on 3 May 1996. The HNS Convention adopts a two-tier system modelled on the CLC/Fund Convention (being a strict liability on the shipowner with a fund on top), but it goes further in that it covers not only pollution damage but also the risks of fire and explosion, including loss of life or personal injury as well as loss of or damage

[69] The OPRC Convention also requires operators of offshore units under the jurisdiction of the parties to have oil pollution emergency plans or similar arrangements which must be coordinated with national systems for responding promptly and effectively to oil pollution incidents.

[70] It should be noted that the definition of hazardous and noxious substance (HNS) in the HNS Protocol is different than the definition in the HNS Convention. The HNS Protocol defines it to be any substance other than oil which, if introduced into the marine environment is likely to create hazards to human health, to harm living resources and marine life, to damage amenities or to interfere with other legitimate uses of the sea. For a further analysis of the OPRC and its HNS Protocol, see De la Fayette, L., The Marine Environment Protection Committee: The Conjunction of the Law of the Sea and International Environmental Law, International Journal of Marine and Coastal Law, 2001, Vol.16, p182-184.

to property. The compensation provided to the victims of accidents involving HNS (such as chemicals) is also up to a certain amount, as in the oil pollution compensation regime.[71] However, the HNS Convention has not entered into force so far.

A working group has been established by the IOPC Fund Assembly to resolve the barriers to ratification of the HNS Convention. The major obstacles to the entry into force of the HNS Convention are believed to be, first, the wide range and diversity of hazardous and noxious substance which shall be governed by the HNS Convention are difficult to decide; second, the countries are obliged to submit reports on contributing cargo when ratifying the HNS Convention, but few states have done so. Based on the study of the working group, the Legal Committee of the IMO drafted a Protocol aimed to resolve these issues through e.g. eliminating the difficult-to-define packaged goods from the definition of contributing cargo; and withholding compensation when the contracting state's report is in arrears.[72]

3. Bunker Convention

It was realized that there was a gap in the pollution liability and compensation regime, since bunkers on non-tankers still fall outside the compensation regime. Hence, at a diplomatic conference in March 2001, the International Convention on Civil Liability for Bunker Oil Pollution Damage 2001 (Bunker Convention 2001) was adopted to address this gap. The Bunker Convention to a large extent follows the liability system for oil pollution damage, being strict liability imposed on the shipowner up to certain amount and it has the requirement of compulsory insurance.[73]

V. Legal regime concerning criminal liability

1. General overview

Civil liability is used to compensate the pollution victims. However, very often in a pollution incident, the behavior of the polluter constitutes violation of relevant regulations (e.g. those on discharge standards) as well; hence, criminal liability may also be used to punish the polluter and to deter the potential violators.

Currently, there is no international convention that specifically imposes criminal liability on the shipowner or master, or anyone involved in the shipping activity which has caused pollution. It are the national laws that implement the relevant international conventions that deal with the issue of criminal liability for polluters. This is mainly because criminal law is in general a matter of national autonomy. At the international level, given the fact that MARPOL Convention is the

[71] For an overview of the HNS Convention, see An Overview of the HNS Convention, prepared by a Correspondence Group under the leadership of the United Kingdom and approved by the Legal Committee of the IMO at its 84th session held in April 2002. See the website: LEG\INF\FACTS\LIABILITY AND COMPENSATION LEGAL ISSUES\HNS conventions overview.doc

[72] The Protocol was drafted by the Legal Committee at its 95th session between 30 March and 3 April 2010, but still has to be adopted by a diplomatic conference envisaged in 2010.

[73] See Griggs, P., International Convention on Civil Liability for Bunker Oil Pollution Damage 2001, at http: www.bmla.org.uk/documents/imo-bunker-convention.doc, and also Wu, C., Liability and Compensation for Bunker Pollution, Journal of Maritime Law and Commerce, 2002, Vol. 33, p553-567.

main international convention regulating discharge standards, it is very likely that the violation of legislation implementing MARPOL may lead to criminal sanctions.

On the other hand, there are two regional regimes that adopt different approaches towards criminal liability for marine oil pollution. These are the EU regime and the US. In the EU, although all the member states are parties to the MARPOL Convention, in addition, there is also Community law which provides for criminal penalties in a different approach than the international convention. The US, as a party to the MARPOL, also has domestic laws that go further than the MARPOL Convention.

2. EU

2.1 Background

Criminal law has been widely used by the EU not only for the protection of the marine environment in particular, but also for the protection of the whole environment in general. The development of Community law on criminal liability for environmental pollution is processed in the conflicts between various institutions of the EU. This is of great importance to the EU legislation on criminal liability for marine pollution since a similar institutional conflict also exists. Therefore, the Community environmental criminal law will be analyzed briefly insofar as it is relevant to the criminal law on marine pollution.

Till 2005, there have always been two lines of legal documents on the subject of criminal liability for environmental pollution developed by different institutions on different legal basis. These are the Commission proposal for a Directive on the protection of the environment through criminal law[74] on the one hand, and the Council Framework Decision on the other.[75]

The existence of two legal documents addressing the same subject is largely due to the complication of the institutions of the EU. A Directive is adopted on the basis of the EC Treaty (the first pillar) whereas a framework decision is based on the EU Treaty (third pillar, inter-governmental cooperation). A Directive will go through both the European Parliament and the Council as part of the Community co-decision making process, but a framework decision is adopted only by the Council. The effect of a Directive is different than a framework decision since in the case of a Directive, the European Court of Justice may intervene to ensure that in the interpretation and application of the EC Treaty the law is observed. With regard to a framework decision, there is no option of bringing infringement proceedings when a member state does not correctly implement its provisions.[76]

Due to the co-existence of two legal documents, the Commission on 15 April 2003 launched an

[74] Official Journal 26 June 2001, C180E.
[75] Council Framework Decision of 27 January 2003 on the protection of the environment through criminal law, OJ 5 February 2003, L 29/55.
[76] For more discussion on this issue, see Comte, F., Criminal Environmental Liability and Community Competence, European Environmental Law Review, 2003, p147-156; Faure, M., European Environmental Criminal Law: Do We Really Need It?, European Environmental Law Review, 2004, p18-29.

appeal against the Council.[77] The Commission argued that under Article 175 of the EC Treaty the European Community can require the member states to prescribe criminal sanctions for infringement of Community environmental legislation, when it is necessary to ensure the effectiveness of the Community environmental policy. The legal basis chosen by the Council was erroneous because environmental criminal law should be undertaken in the context of the EC Treaty (first pillar) and not by the Council within the framework of the third pillar. The Council maintained that the Community does not have the power to require the member states to impose criminal penalties in respect of the conduct covered by the council framework decision, as there is no express conferral of power in that regard. The European Court of Justice in its judgment of 13 September 2005 supported the Commission's view and annulled the council framework decision.[78] The Court found that although "as a general rule, neither criminal law nor the rules of criminal procedure fall within the community competence", the Community legislature may take measures relating to criminal law when it is necessary to ensure the effectiveness of the rules on environmental protection. The goal of the council framework decision was also the protection of the environment, which could have been properly adopted on the basis of Article 175 EC (first pillar), the Court held that the "entire framework decision, being indivisible, infringes article 47 EU as it encroaches on the powers which article 175 EC confers on the Community."[79]

Two months after the decision was rendered, the Commission published a Communication on the implication of the judgment.[80] In the Communication, the Commission mentioned it would appeal to the Court for the annulment of the council framework decision 2005/667/JHA for the enforcement of law for ship source pollution which will be discussed below.[81]

2.2 Community law on criminal liability for marine oil pollution

The debate within the EU concerning criminal liability for marine pollution started in the political debate following the Erika and Prestige incidents. Already in the Erika I package,[82] the Commission expressed dissatisfaction with the current system and considered that a deterrent sanction should be imposed on those who caused or contributed to the oil pollution by gross negligence. Later in the Erika II package,[83] the Commission specifically mentioned that penal sanctions should be included.[84] The Commission proposed financial penalty for grossly negligent behavior of any person involved in the transport of oil by sea. The Commission stressed that this penalty should be imposed by member states outside the scope of compensation and civil liability. However, the exact nature of the sanction (criminal, administrative, punitive damage, etc.) was left to member states to decide which best fits their legal system. The use of penal sanctions to complement the civil liability regime for vessel source pollution was

[77] Official Journal 7 06 2003, C135/21.
[78] Case C-176/03.
[79] Section 53 of the decision of 13 September 2003, Case C-176/03.
[80] COM (2005) 583 final.
[81] Section 15 of COM (2005) 583 final.
[82] COM (2000) 142 final.
[83] COM (2000) 802 final, Communication from the Commission to the European Parliament and to the Council on a second set of Community measures on maritime safety following the sinking of the oil tanker Erika, 6 December 2000.
[84] COM (2000) 802 final, Art. 10 of the COPE Fund Proposal.

emphasized again by the Commission in its Communication in response to the Prestige accident.[85]

Therefore on 5 March 2003, the Commission adopted a proposal for a Directive concerning criminal penalties for vessel source marine pollution.[86] As explained by the Commission in the proposal, the reason for the Commission to come up with the EC legislation is mainly due to the dissatisfaction with the effectiveness of the implementation of the international conventions including the MARPOL Convention.[87]

The Commission also considered that penalties should be adequate in severity to discourage potential offenders. The variability of levels of penalties in different member states creates distortions in the potential financial and other consequences of pollution which gives the chance for polluters to seek safe havens in the European Community through forum shopping. Therefore, the same approach in tackling those crimes should be adopted by all member states, whether acting as flag state, port state or coastal state. Thus, the Directive should be supplemented by measures harmonizing criminal penalties. That was why the framework decision to strengthen the criminal law framework for the enforcement of the law against ship-source pollution was introduced to impose minimal sanctions.[88]

In 2005, both the Council framework decision[89] and the Directive[90] were adopted, on 12 July and 7 September respectively. It is interesting to notice that the major shipping power of the EU countries, Greece and Malta voted against, and Cyprus abstained at the final decision of the Council on the adoption of the Directive.[91] In addition to the institutional conflicts, the EU Directive since its first draft in 2003 was also criticized for its impact on the industry, its effectiveness in preventing further pollution incidents and its legality in terms of international law was also questioned. However, since this thesis is mainly focusing on the civil liability, the appropriateness of European law on criminal liability will hence not be discussed in detail.

The Directive lays down general principles for penalizing polluting behaviour, and it contains definition of the infringement (under what circumstances ship source pollution should be considered a criminal offence) which will be criminalized. The council framework decision is primarily designed to approximate levels of criminal penalties. The council framework decision specifies the applicable criminal sanctions, and includes provisions on the nature, type and levels of criminal penalties.

As mentioned above, in view of the decision that the council framework decision on

[85] COM (2002) 681 final, Communication from the Commission to the European Parliament and to the Council on improving safety at sea in response to the Prestige accident, 03/12/2003.
[86] COM (2003) 92 final, Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on ship-source pollution and on the introduction of sanctions, including criminal sanctions, for pollution offences, 05/03/2003.
[87] COM (2003) 92 final, p3-4.
[88] COM (2003) 227 final, Proposal for a Council Framework Decision to strengthen the criminal-law framework for the enforcement of the law against ship-source pollution, 02/05/2003.
[89] Council framework decision 2005/667/JHA
[90] Directive 2005/35/EC.
[91] Press Release (11138/05, Press 188), 12 July 2005.

environmental protection through criminal law was annulled, the Commission appealed against the framework decision on criminal liability for ship source pollution.[92] In its decision of 23 October 2007, the European Court of Justice ruled that the framework decision should have been adopted on the basis of Article 80(2) of EC Treaty (first pillar), instead of Article IV of EU Treaty (third pillar). For this reason, the Court annulled the framework decision.[93] Nonetheless, the Court noted that the provisions in the framework decision specifying minimum levels of maximum penalties were rightly adopted in the third pillar, as "the determination of the type and level of the criminal penalties to be applied does not fall within the Community's sphere of competence".[94] Hence, the cross-border effect of maritime pollution cannot justify neglecting the principle of subsidiarity. In the decision, the Court also made it clear that the Commission may prescribe the use of criminal penalties (if certain conditions are fulfilled and if the topic falls within the sphere of competence of the Commission), but it is not competent to "determine the type and level of the criminal penalties to be applied".[95]

Since the Council framework decision was annulled, the Commission was afraid there was a legal vacuum concerning criminal liability for marine pollution at the Community level. Hence, the Commission introduced on 11 March 2008 a proposal to amend Directive 2005/35/EC.[96] This proposal incorporates substantially the contents of the annulled Council framework decision. However, although the Commission believed that significantly differing sanction levels in the member states risks providing for safe havens for offenders, the Commission is bound by this judgment and could therefore not include provisions on the types and levels of sanctions in its 2008 proposal. Accordingly, the Commission deleted such provisions on approximating level of criminal sanction in the proposal. However, this does not answer the need for criminal harmonization when it comes to marine pollution. The Commission adds that "the framework decision does not harmonize the type and level of applicable criminal penalty, as the member states retain certain latitude in that regard and the national courts have discretion to adjust the penalties to suit the individual case."[97]

2.3 Directive 2005/35/EC v. MARPOL Annex I

The Directive goes further in its scope of application and its imposition of liability. The Directive established that discharge of polluting substances will be a criminal offence if committed with intent, recklessly or by serious negligence. Any person who has caused or contributed to pollution intentionally or by serious negligence will be subject to sanctions. Sanctions include imprisonment up to ten years, fines up to €1.5 million, temporary or permanent disqualification from engaging in commercial activities, judicial winding up etc.

The major differences between MARPOL Annex I and the Directive can be summarized as

[92] Case C-440/05.
[93] Faure, M., The Continuing Story of Environmental Criminal Law in Europe after 23 October 2007, European Energy and Environmental Law Review, 2008, p68-75.
[94] C-440/05, para.7
[95] This point was not addressed in the case of 13 September 2005.
[96] COM (2008) 134 final, Proposal for a Directive of the European Parliament and of the Council amending Directive 2005/35/EC on ship-source pollution and on the introduction of penalties for infringements.
[97] Section 35 of Case 23 October 2007, C-440/05.

follows:

First, MARPOL makes a distinction between the operational and accident discharges, whereas such a distinction does not exist in the Directive. Under MARPOL only operational discharges are subject to criminal sanctions, while the accidental discharges not. MARPOL provides that "discharge into the sea of oil or oily mixtures from ships… shall be prohibited" except when certain conditions are met.[98] When operational discharges contravene these provisions, they constitute violations of international law, and shall be subject to the penalties prescribed in the national laws implementing MARPOL Convention. Accidental discharges are treated differently in the MARPOL Convention. A discharge does not necessarily constitute a breach of international law when it results from damage to a ship or its equipment. In such a case, a violation of MARPOL is committed only if there has been a failure to act reasonably to minimize damage after discovering the discharge, or if "the owner or master acted either with intent to cause damage or recklessly with knowledge that damage would probably result."[99] Therefore, there should be no criminal implications where pollution results from a shipping casualty caused e.g. by negligence in the management or navigation of the ship, or of another ship with which it collides, or from negligence of pilots, port authorities, or other parties.

Second, the standards for criminal sanctions are different. Under MARPOL, operational discharges are prohibited except when certain conditions are complied with. In case of violation, strict liability will be imposed. Thus MARPOL provides only very limited cases where the master or shipowner may be sanctioned. The Directive established a lower liability test: any accidental pollution discharge must be sanctioned when any of the operators in the shipping chain "acted with intent or recklessly or with serious negligence". The "serious negligence" was strongly opposed by the shipping industry because it was purely subjective and not well defined.[100]

Third, MARPOL imposes liability only on the master and the shipowner, and not on all the other parties in the shipping chain, who could have caused or contributed to the pollution. The Directive established extensive liability by imposing sanctions on any party responsible for pollution infringements. This may include not only the master and the owner, but also the manager, the charterer, the classification societies, etc.

Fourth, the Directive tackles discharges in all sea areas including the high seas. Hence, it may be enforced on all ships calling EU ports irrespective of their flags. MARPOL Convention applies only to the territorial sea of the contracting state.

[98] MARPOL Annex I, Regulation 9.
[99] Regulation 11 (b) of MARPOL Annex I.
[100] Mariscene Issue 31, winter 2005 (The Newsletter published by the International Chamber of Shipping and International Shipping Federation). The industry expressed its concern that when applying the standard of "serious negligence", the European courts might be tempted to label an act or default as serious just because the effects of the act resulted in "serious" pollution damage.

3. US

Since the Exxon Valdez incident, criminal liability arising from oil discharge has become an increasing concern in the US. There are several federal statutes that contain provisions on criminal liability for marine pollution. The Oil Pollution Act expressly permits prosecutors to seek criminal penalties under other statutes in case of an oil pollution incident.[101] The Clean Water Act imposes criminal liability for vessel source oil pollution in the navigable US waters. Section 311 of the Clean Water Act contains a broad prohibition against discharges of oil or hazardous substances into the navigable waters of the US or the contiguous zone or discharges which may affect natural resources of the US. It also specifies that it is unlawful for any person to discharge a pollutant except in very limited cases.[102] Violations of these provisions are subject to criminal penalties.[103] Moreover, the CWA also imposes criminal liability for the failure to report discharge of oil or hazardous substance.[104]

In the US, the Act to Prevent Pollution from Ships (APPS)[105] is the federal legislation implementing MARPOL Convention. Under APPS, any person knowingly violating MARPOL, APPS, or the federal regulations promulgated under APPS 1908 (a) constitutes a crime. Already in the early 1990s, the US authorities began to use APPS to bring criminal charges against the operators of foreign-flag vessels for illegal discharge in the US EEZ, and against operators of US flag vessels for illegal discharge on the high seas. However, the APPS did not provide jurisdiction for the US to prosecute foreign flag vessels for discharge beyond the 12 miles US territorial sea, and very often discharges in violation of MARPOL occurring on the high seas are subject to the law of the flag state. Thus, the US Coast Guard uses the opportunity of port state control to inspect particularly the Oil Record Book. In case when the oil record book is not in compliance with relevant regulations including *inter alia* MARPOL, the vessel will be denied entry to the US port or detained. Moreover, criminal proceedings might be initiated under the False Statement Act.[106] The theory was that the intentional entering of incorrect data in oil record books which are required by MARPOL to conceal illegal discharges constitutes false statements made to the government when the oil record books were presented to the Coast Guard in US ports. Thus, even though the underlying conduct, i.e. illegal discharge of oily bilge water on the high seas does not provide criminal jurisdiction for an environmental prosecution, the attendant false statement in the oil record book, once presented to the Coast Guard, did. Hence, it is very likely even where no pollution occurred, criminal liability may still be imposed for falsifying the oil record book.

[101] Section 1018 of OPA.
[102] 33. U.S.C. §1311 (a).
[103] Section 309 of CWA prescribes the criminal penalties, but these penalties are increased in severity through the revision of OPA.
[104] For more detailed discussion on the criminal liability under US law, see De la Rue, C. and Anderson, C.,1998, p909-932.
[105] 33 U.S.C. § 1901 et seq.
[106] Federal False Statement Act, 18 U.S.C. §1001.

VI. Regional initiatives

1. Role of regional initiatives

Regional initiatives often play a crucial role in the protection of environment.[107] As for the marine environmental protection, it is also the case. Numerous changes at the international level especially some recent changes derive from regional initiatives, in particular the EU and the US. Hence, in this section, some important regional arrangements and their influence on the international regime will be discussed. However, this section will focus merely on the role the regional initiatives within the context of the whole international regime, and the changes at international level triggered by the regional initiatives will not be discussed in detail since they will be further analyzed in Chapter 5 this thesis.

2. EU

2.1 Overview of the EU approach

With its continuing enlargement process, the European Union has so far 27 member states. The European Union, due to its geography (vast coastline along the Atlantic and the Mediterranean sea) and its history (lots of EU member states have long merchant marine tradition, in particular, the UK, Denmark, Greece, the Netherlands, Malta and Cyprus) is very much dependent on maritime business. The EU oil trade is the largest in the world, 90% of the total oil trade with the European Union is carried out by sea transportation, and its crude oil imports representing about 27% of the total world trade.[108] While on the other hand, the coasts in Europe are extremely vulnerable to the pollution risks. [109] Hence, it is in the interest of the European Union to protect the European waters from the risks of pollution, especially oil pollution. As specified in the well-known Art.175 of the EU Treaty, environmental protection is one of the basic aims of the European Union.[110]

Originally, the EU approach regarding marine environmental protection was to rely on the IMO to adopt conventions addressing the prevention or compensation issues and to rely on member states to implement such international conventions. The rationale was that the transboundary nature of maritime transportation makes it easier to regulate the related pollution problem through international legislation rather than through a domestic approach. However, this approach changed recently especially after witnessing some catastrophic oil spills, while the IMO did not react as quickly as expected by the EU. Moreover, the implementation of the IMO mechanisms simply depends on the member states, which is not effective in many cases. Thus, the EU started to take its own initiative.

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[107] See Sands, P., Transnational Environmental Law: Lessons in Global Change, Kluwer Law International, London, 1999, p175.

[108] EUROSTAT and OECD/IEA statistics, Journal de la Marine Marchande; and COM (2000) 142 final, Communication from the Commission to the European Parliament and the Council on the Safety of the Seaborne Oil Trade, 21 March 2000, p8. It should be noted that this figure represents the then 15 EU member states.

[109] Some 70% of the European Union's oil imports are transported along the Brittany coast and through the English Channel. Hence it happened that the same regions were hit again and again by oil pollution damage. For a more detailed analysis, see COM (2000) 142 final, 21 March 2000, p4.

[110] Environmental policy was built into the Treaty by the Single European Act of 1987 and its scope was extended by the Treaty on European Union in 1992.

The EU has realized that marine oil pollution is an international problem which could be better and more effectively tackled at the international level. The European Union thus not only aims at the prevention of and compensation for oil pollution damage under the Community framework, but also at the protection of its interest at the international level.[111]

The EU recognized the IMO as "the body 'par excellence' for dealing with shipping safety and protection of the marine environment"[112]; thus the EU mainly built its legislation on the basis of IMO Conventions and Resolutions. Particularly before 1993, the EU merely counted on the Member States to ratify various international maritime conventions. However, the EU realized that despite the stringent rules established in the international conventions, due to the lack of international overall monitoring or sanctions, the international conventions are not effectively implemented throughout the world.[113] Due to this consideration, the EU has changed its approach in 1993 with the publication of the long-awaited Communication on Safe Seas and started to take its own initiatives for legislation at a European level.[114] The European Community through its special institutions makes the international legislation binding for the Member States. When the states do not apply the rules, they may have to appear before the Court of Justice and could be convicted, and failure to comply can lead to penalties. It seems the European Community has a greater chance of more detailed, effective and quicker legislation being adopted at an EU level.

As most of European oil trade is sea born, and European waters are dense traffic routes, they are thus exposed to serious pollution risks. Once and again, witnessing the damage caused by oil pollution incidents, the EU decided to strengthen its legislation especially since the Erika incident on 12 December 1999. The EU in reaction has adopted two sets of legislative proposals in March and December 2000 respectively by the Commission, the so-called Erika I[115] and Erika II packages,[116] which has considerably reinforced its legislative arsenal in order to protect European waters better against the risks of accidental oil spills. The Erika I package consists of proposals to strengthen port state control in the EU, to strengthen the monitoring of the

[111] For an overview of the protection of the marine environment in the EU see M. Hedemann-Robinson, Protection of the Marine Environment and the European Union – Drifting or making headway? Some critical Reflections on Internal and External Dimensions to Law, Policy and Practice, Environmental Liability, 2004, p3-18.

[112] Opinion of the Economic and Social Committee on the Proposal for a Council Regulation on the transfer of ships from one register to another within the Community COM (90) 219 final.

[113] Power, V., EC Shipping Law, LLP, 1998, p14. Take, for instance, the fact that the European Commission is empowered to pursue the Member States for failure to notify, to adequately transpose into national law or to implement directives.

[114] On 24 February 1993, the European Commission published the long-awaited Communication on Safe Seas, COM (93) 66 final. In the Communication, the Commission analyzed the situation of maritime safety in Europe and outlined a framework for a common maritime policy. The basic principles of the policy include the convergent implementation of existing international rules, the uniform enforcement of international rules by the Port States and the reinforcement of the EU's role as the driving force for rule making at the international level. Several important legislative acts were proposed and adopted in the following five years as an implementation of the action program attached to the Communication. They are considered the core of the EU's maritime safety policy today.

[115] COM (2000) 142 final, Communication from the Commission to the European Parliament and the Council on the Safety of the Seaborne Oil Trading, 21 March 2000.

[116] COM (2000) 802 final, Communication from the Commission to the European Parliament and the Council on a Second Set of Community Measures on Maritime Safety following the Sinking of the Oil Tanker Erika, 6 December 2000.

classification societies, and to accelerate the timetable for the phasing out of single hull tankers.[117] The Erika II package contains measures to establish a Maritime Safety Agency, and an automatic identification system (black box), and to set up a regional compensation fund (the so-called COPE Fund).

Before the Erika measures could come into force, another tanker polluted the European water again, the Prestige on 13 November 2002. The European Commission was determined to accelerate the speed of implementing the Erika I and II packages. This activism was partially due to the French presidency of the EU in the second half of 2000. Hence, the European Commission added to the political pressure on the international oil pollution liability system.[118] On 23 November 2005, the Commission published its Erika III package[119] which contains measures to further strengthen the maritime safety in Europe.

2.2 Examples of EU measures and its impact on the international regime

The EU countries have played crucial roles in the recent development of the international regime on vessel-source marine pollution. A few examples can be found if one closely looks at the development of the Community law and the international conventions. (For a detailed analysis of the interaction of the European Community law and the international conventions on civil liability for marine oil pollution, see the discussion on recent development of the international regime in Chapter 5.)

It was probably due to the fact that the damage caused by the Erika incident to the French coast was much larger than the compensation available at the moment from the international regime, the Commission in its Erika I package was especially critical with the liability limits of the international conventions. However, out of various considerations, the Commission preferred to increase the compensation limits at the international level. This was reached through the 2000 Protocols of the international conventions whereby the compensation limits were increased by 50%.

In the Erika II package, the Commission proposed to set up a regional European Fund with a higher ceiling of €1 billion (instead of €200 million under the international conventions).[120] This position was even firmer after witnessing the Prestige oil spill. The Commission then urged the member states to work with determination within the IMO to adopt an additional compensation scheme for the victims of oil spills up to the increased limit of €1 billion. It was very likely at the time that in case of failure of the proposal at international level, the EU would have to address the question within the EU framework, like the model of the US system.[121] This was again realized in

[117] Nesterowicz, M. A., European Union Legal Measures in Response to the Oil Pollution of the Sea, Tulane Maritime Law Journal, 2004, Vol.29, p33-35.
[118] Mason, M., Civil Liability for Oil Pollution Damage: Examining the Evolving Scope for Environmental Compensation in the International Regime, Marine Policy, 2003, Vol.27, p5.
[119] COM (2005) 585 final, Communication from the Commission: Third Package of Legislative Measures on Maritime Safety in European Union.
[120] See in this respect the amended proposal for a regulation of the European Parliament and of the Council on the Establishment of a Fund for the Compensation of Oil Pollution Damage in European Waters and Related Measures, OJ C227 E/487 of 24 September 2002.
[121] In the context of the 1990 Oil Pollution Act (OPA 1990), the United States has decided not to join the

May 2003 through the adoption of the 2003 Protocol on the Establishment of a Supplementary Fund for Oil Pollution Damage. It established a supplementary fund with 750 million SDR (at the time of adoption this corresponded to approximately €920 million or US$ 1,000 million).

So far, the efforts of the European countries have been successful in promoting the legislative measures originated at the Community level to internationally. The Commission's initiatives to improve maritime safety still continue. Thus in the Erika III package published in 2005, the Commission launched 7 new draft Directives intended to improve the efficiency of existing European legislation on maritime safety. These include measures on flag state control,[122] classification societies,[123] stricter port state control,[124] amending the traffic monitoring system,[125] accident investigation system,[126] liability and compensation for damage to passengers in the event of a maritime accident,[127] extra-contractual liability of shipowners.[128] These proposals are currently in the legislation process of being discussed by the Parliament. Hence, the effect of such EU legislation on the international scale still needs to be seen when they are adopted.

3. US

The US is the world's largest oil importer and it has a relatively long coastline as well. The US policy has always been vigorous in adopting legislations on marine environmental protection. Surprisingly enough, the US does not ratify most of the international conventions on marine pollution with few exceptions such as the MARPOL Convention and the Intervention Convention.

The US delegations at diplomatic conferences preceding the conclusion of some major international conventions often took strong stance for imposing severe standards or harsh measures, or very high compensation amounts to the pollution victims (even with no financial limits on the compensation at all). However, when the international conventions were finally concluded, the US government did not ratify them mainly due to the objection from the Senate. This happened when the international conventions on civil liability for marine oil pollution damage were established in 1969 and 1971, and amended in 1984. The US withdrew from the international regime and adopted a domestic regime with the adoption of the Oil Pollution Act of 1990.

At least as far as the regime for marine oil pollution compensation is concerned, the US efforts to promote regional initiatives at international level may not seem so influential as the European countries mainly because of its departure from the international conventions. However, the US has succeeded in reaching some of its major goals through the international conventions although

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international arrangement, but has set up its own system with a compensation fund of US$ 1 billion.
[122] COM (2005) 586 final.
[123] COM (2005) 587 final.
[124] COM (2005) 588 final.
[125] COM (2005) 589 final.
[126] COM (2005) 590 final.
[127] COM (2005) 592 final.
[128] COM (2005) 593 final.

it failed to ratify them. For example, the high amounts of compensation in the 1984 Protocols were actually close to the original amounts proposed by the US delegation. Moreover, the decrease of oil pollution incidents in the US waters may lead to the question whether the US system which is so different than the international convention is a better instrument in reducing pollution incidents. Nevertheless, some domestic laws in the US (which set up higher standards than the international regime) eventually leads to some changes in the international regime. A good illustration in this respect is the phasing out of single hull tankers as mentioned above in section II.

VII. Concluding remarks

A large number of conventions have been adopted to tackle the vessel-source marine pollution. To some extent, one can notice how the various conventions have different accents. MARPOL is clearly more occupied with environmental protection, whereas the main interest of UNCLOS is probably rather the protection of free navigation, in a fear of overactive protective measures by coastal states. The jurisdiction system as established through the UNCLOS serves to an important extent the purpose to strike a balance between economic and environmental interest, within the marine protection area translated in the conflict between shipping interests and interest of coastal states which can be victimized by pollution. To some extent, one can argue that the result of this balancing process can be found in awarding jurisdiction to port states, which may have both an interest in shipping and in environmental protection as well to the extent that they can be victimized by polluting activities within their territory.

Inevitably, the fact that many rules on jurisdiction do not have as main goal the protection of the marine environment, but rather safeguarding navigation interests from overly protective national environmental measures may lead to the result that some inherent weaknesses of the system remain, for example as far as jurisdiction on high seas is concerned. The states realize that the traditional competence of flag states for dealing with pollution incidents on high states may be ineffective and shifted powers (under article 218 of UNCLOS) to the port states. However, a question which will always arise is to what extent the port state will effectively be able to enforce measures upon ships in high seas.

On the one hand, one can of course notice that the international framework for protecting the marine environment against vessel source pollution has always intensified. On the other hand, there is ample empirical evidence that pollution incidents still are very frequent today.[129] Moreover, one also has to realize that the effectiveness of the international regime depends to an important extent upon its implementation by the signatory states. In this respect, the effectiveness will also depend upon the sanctions imposed by signatory states upon violation of their national legislation. In the literature, it has been noticed that to some extent, states used only to impose fines in case of violation, whereas moreover, these fines were largely insured by protection and indemnity clubs (P&I clubs). This may of course largely limit the effectiveness of the

[129] This is at least the case for oil pollution, but probably for pollution resulting from other substances as well. For an overview of empirical data in that respect see Hendrickx, R., Maritime Oil Pollution: An Empirical Analysis, in: Faure, M. and Verheij, A. (eds), Shifts in Compensation for Environmental Damage, Springer Wien New York, Germany, 2007, p243-260.

enforcement regime.[130]

One can therefore understand that within some regional regulations, more particularly within the European Union, increasingly obligations are also imposed upon states to use particular sanctions, more particularly criminal sanctions, on the violation of regulations with respect to the protection of the marine environment. This shows that the final effectiveness of the international regime will of course also to a large extent depend upon enforcement, which unavoidably takes place at the level of the participating states.

This brief summary of regulations at international and regional level shows that there is a large patchwork of legal rules and institutions aiming at the prevention and control of oil pollution damage. However, notwithstanding the apparent intensity of the legal framework gaps may still exist as is unfortunately shown by the fact that notwithstanding the existence of a detailed regulatory framework major marine pollution incidents do not cease to occur. This can partially be due to the fact that drafting legal rules itself of course do not suffice to solve the problem, the legal framework needs also to be implemented and enforced in an effective manner. It is precisely at the level of implementation and enforcement that many weaknesses may still exist.

Moreover, the application of the legal framework remains by the end of the day always the responsibility of individuals that have to comply with the rules. Recent incidents showed that the human factor has been often decisive as a cause of marine pollution. That is why recent efforts are now also addressed towards attempt to control this human factor. In this respect one can refer to e.g. the ISM Code.

The regulatory framework is therefore to some extent still in full evolution. The recent development with respect to the application of criminal liability to marine pollution shows that the internationalization of this domain has in fact just begun. In sum, given the inherent weakness in the regulatory framework both at the level of standard setting and enforcement also in the "near" future unfortunately marine pollution incidents will still be likely to occur. That therefore justifies the question how victims of marine pollution damage can be adequately compensated through a variety of mechanisms. That is the central question which will be answered in the remainder of this thesis.

[130] For a critical analysis see Faure, M. and Heine, G., 1991, p39-54.

Chapter 4 Introduction of the International Regime

I. Background

1. Torrey Canyon incident

On 18 March 1967, the Torrey Canyon was grounded near the Seven Stones Reef of the English Channel. It resulted in 117,000 tonnes of crude oil spilled and polluted the southwest coast of the UK and the Brittany coast of the France with the total damage in the two countries exceeding 6 million pounds, but finally settled for 3.8 million pounds.[1] The incident has caused huge damage of an unprecedented scale to the British and French coasts and has demonstrated the complication of legal issues in case of a serious oil spill.

Prior to the Torrey Canyon incident in 1967, there was no uniform legal approach or any international legal regime regulating liability and compensation for oil pollution. It was mainly up to national law to decide on how to compensate the pollution victims. In most countries, liability for marine oil pollution was grounded on tort law principles.[2] That meant that the general principles of tort law or contract law would apply unless there are special rules governing this specific activity or contract.[3] The tort laws varied from country to country. In some jurisdictions, proof of negligence was required, while in others the occurrence of pollution damage regardless of negligence might be sufficient.[4] On the other hand, such a marine casualty often involved many parties from different countries. Thus the differences in legislation of different countries caused great difficulties for the victims seeking compensation.

Take the case of Torrey Canyon for instance. The vessel was owned by the Barracuda Tanker Corporation which was registered in Bermuda.[5] The tanker had a Liberian flag and was on a time charter[6] to a US company called Union Oil Company of California, which was the holding company of the Barracuda Tanker Corporation. A voyage charter was then arranged between Union Oil and the British Petroleum Company in London, the cargo owner at the time of incident. The master and crew were Italian.[7]

Under English law, there were mainly three causes of action for tort liability: trespass, negligence and nuisance.[8] None of these would be easy for the victims to establish, as a case in 1950 has

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[1] Tanikawa, H., A Revolution in Maritime Law: a History of the Original Legal Framework on Oil Spill Liability and Compensation, The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, the IOPC Funds, 2003, p51.

[2] De la Rue, C. and Anderson, C.,1998, p8.

[3] Griggs, P., Common Law and Civil Law: A CMI Perspective, in Van Hooydonk, E. (ed.) English and Continental Maritime Law, After 115 Years of Maritime Law Unification: a Search for Differences between Common Law and Civil Law, Maklu, Antwerp, 2003, p162.

[4] Mankabady, S. (ed.), The International Maritime Organisation, Croom Helm Ltd, 1986, p378.

[5] The tanker was owned by the Barracuda Tanker Cooperation, a subsidiary of the Union Oil Company of California, operating out of Bermuda. See Gill, C., Booker, F. and Soper, T., The Wreck of the Torrey Canyon, 1967, p60-71; Chemical Week, 8 April 1967, p59.

[6] For the notion of the time charter, see supra Chapter 2. The vessel was under bareboat charter to a California corporation and sub-chartered on a voyage charter to a British corporation. See Sweeney, J., 1968, p157-158.

[7] Case Notes: Constitution of the Torrey Canyon Limitation Fund, In re Barracuda Tanker Corporation, 409 F.2nd 1013 (2nd Cir. 1969), Journal of Maritime Law and Commerce, Vol.1, No.1, October 1969, p146.

[8] Wu, C., Pollution from the Carriage of Oil by Sea: Liability and Compensation, Kluwer Law International,

shown.[9] Under French law, there were basically two causes of action. One is fault, anyone is liable for his fault, and thus a shipowner should be of no exception. The second is rooted in maritime traditions, the Commercial Code of 1807.[10] None of the then existing international conventions could be applied to the Torrey Canyon case, as far as compensation for the oil pollution damage is concerned. Moreover under any existing national law (English law or French law), the compensation in case of an accident like Torrey Canyon would be insufficient.

The huge scale of the damage caused by the Torrey Canyon oil spill made all those concerned at intergovernmental, national and industrial levels realize the inadequacy of the existing measures on cleanup and compensation and require urgent review of the existing system. The international community recognized that with the increasing demand for oil, the sizes of tankers would be growing, and the potential risks of oil pollution became bigger. It is very likely that given the larger size of tankers, once an incident happened, there would be larger scale of oil spilled into the sea. On the other hand, it was held that the rules on liability seemed outdated and inappropriate, the traditional basis of liability did not correspond with the nature of tanker accidents and the compensation did not reflect the extent of the damage caused.[11] Hence, it was considered necessary for an international regime to compensate the victims and to compensate the costs of the public authorities spent in mitigating pollution damage.

2. TOVALOP

2.1 Coming into being

In the wake of intense discussions after the Torrey Canyon disaster, the industries reacted quickly with the adoption of some voluntary schemes.

Realizing the inherent danger in discharges of oil and the fact that traditional maritime laws do not always provide adequate compensation for oil pollution victims, and the clean-up expenditures incurred by national governments and that tanker owners do not always get reimbursed, some tanker owners[12] on 7 January 1969 signed the Tanker Owners Voluntary Agreement concerning Liability for Oil Pollution (TOVALOP). The TOVALOP came into effect on 6 October 1969,[13] by which time owners of at least 50% of the world's tanker tonnage had become parties.[14]

The industry felt from the very beginning that in order to have sufficient impact on the world's

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1996, p14.

[9] The case of Inverpool in December 1950. Further discussion on the case, see De la Rue, C. and Anderson, C., Shipping and the Environment Law and Practice, LLP, 1998, p10.

[10] Sweeney, J., 1968, p155-208.

[11] Wu, C., 1996, p34.

[12] These include 7 major oil companies like BP Tanker Company Ltd., Esso Transport Co. Inc., Gulf Oil Corp., Mobil Oil Corp., Shell International Petroleum Co. Ltd., Standard Oil Co. of California and Texaco Inc. There are also some smaller companies such as Trinidad Corp., Atlantic Whichfield Co. and Hess and Chemical Corp. Source from Payment for Oil Pollution Scheme, Marine Pollution Bulletin, No.17, November 1969, p18.

[13] For the contents of the TOVALOP, see International Legal Materials, Vol.8, 1969, p497.

[14] Becker, G., A Short Cruise on the Good Ships TOVALOP and CRISTAL, Journal of Maritime Law and Commerce, 1974, Vol.5, p610. According to the Marine Pollution Bulletin, this figure was 55%. See Payment for Oil Pollution Scheme, Marine Pollution Bulletin, No.17, November 1969, p17.

opinion, it would be necessary to obtain the support of the tanker owners representing no less than 80% of the world's tanker tonnage. Within six months since the agreement became effective, the membership of the TOVALOP has risen from 55% to 80% of the gross registered tonnage of the world's privately owned tanker fleet.[15] By 1973, TOVALOP has covered 99% of the world's tanker tonnage.[16]

As stated in its preamble, TOVALOP reflected the opinion of its signatories that the traditional maritime law did not provide adequate compensation for national governments or tanker owners who incurred expenditures to avoid or mitigate oil pollution damage, or for reimbursing tanker owners who incur such expenditures, or for encouraging joint government-tanker owner mitigating measures. TOVALOP is proclaimed (in its Preamble) to represent a voluntary effort on the part of the tanker owners to establish their responsibility to governments for paying compensation for such cleanup costs, to assure tanker owner's capability to fulfill this responsibility, and otherwise to alleviate the situation.

The basic principle of TOVALOP is that when a participating tanker spills, or threatens to spill persistent oil (whether as cargo or fuel), the tanker owner or the bareboat charterer[17] shall either take appropriate actions (to remove the spill) or reimburse governments and others who incur reasonable costs in responding to the incident or who suffer pollution damage.[18] Measures taken in response to the incident include attempts to eliminate the threat, and actions to prevent or minimize pollution damage, for example by using booms, skimmers and other clean-up techniques. TOVALOP was based on negligence liability with a reversal of burden of proof, being the shipowner had to prove absence of fault to escape liability.[19] Pollution damage is defined to be (physical) contamination damage which results directly from the escape or discharge of oil, and excludes fire, explosion, consequential or ecological damage.[20] Thus it can include things as oiling of the fishing boats and gear, and contamination of cultivated stocks of seaweed, shellfish or other marine products. However, damage to non-commercial natural resources or claims which are theoretical or speculative are not covered.

The maximum amount of a tanker owner's liability was limited to $100 per gross registered tonnage of tanker or $10 million per incident, whichever is less. When the actual total damage exceeds the liability limits described above, the compensation for such damage will be pro-rated.[21]

Another important feature of TOVALOP is that the participants must provide evidence to show their financial capability to meet their responsibilities.[22] This is generally done by insurance through entry in a P & I Club. TOVALOP also accepted insurance with the International Tankers

[15] Payment for Oil Pollution Scheme, Marine Pollution Bulletin, No.17, November 1969, p17.
[16] TOVALOP Booklet, reprint of January 1973, published by the International Tanker Owners Pollution Federation Ltd., the organization which administrates the TOVALOP. Source from Becker, G., 1974, p610.
[17] Clause I (b) provides that if the tanker is under bareboat charter, the owner shall be the bareboat charterer for the purpose of TOVALOP.
[18] Clause IV (A) of TOVALOP.
[19] Clause IV (B) of TOVALOP.
[20] Clause I (h) of TOVALOP.
[21] Clause VI (C) of TOVALOP.
[22] Clause II (C).

Indemnity Association (ITIA), a mutual insurance association established by some of the sponsors of TOVALOP, and with other liability insurers.[23]

TOVALOP is administered by the International Tanker Owners Pollution Federation Limited (ITOPF, or the Federation), which all parties of TOVALOP are members to and it was incorporated in December 1968.[24]

Since its inception, TOVALOP has been amended on a number of occasions. As a result, in the 1973 version of the agreement, the definition of oil, government and the scope of application were expanded. Hence, in the 1973 version, the TOVALOP covered not only the situation where there was discharge of oil, but also when there was threat of discharge.[25]

2.2 Influence of TOVALOP

The existence of TOVALOP made clear what kind of liabilities the shipowners would be confronted with and hence what type of liability insurance should be designed to cover such liabilities. It thus has removed a number of uncertainties existed before, and hence was welcomed by the shipping industry.[26] Moreover, it encouraged prompt action to clean up or mitigate the effects of an actual or threatened oil spill, and it could assure at least to certain extent a timely compensation, compared with prior situation.[27] TOVALOP was also considered at the time a substantial and constructive advance in the legal regime applicable to oil pollution damage.[28]

Many tanker charterparties include a so-called "TOVALOP clause" in their contracts with shipowners. These clauses authorize the oil company charterer to clean up a spill from the tanker at the tanker owner's expense, when the owner does not take such action himself. Charterers can freely exercise this right, confident that the shipowner's underwriters will respond.[29]

Such an industry scheme quickly gained wide support. However, the industry was not so satisfied with the impact of the TOVALOP Agreement since they considered that the usefulness of such an industry scheme was eroded by the prospect of the international conventions and the extensive national oil pollution legislations.[30] There were albeit not so many, but some major claims handled under the TOVALOP Agreement. These include, *inter alia*, accidents with the

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[23] Becker, G., 1974, p612. The ITIA ceased underwriting when the TOVALOP terminated in 1997.
[24] Clause II (B) (C) and (D). See Kirby, J., How it Began, in: Ten Years of TOVALOP, 1979, ITOPF, p2.
[25] Clause I (k), enlarging the definition of "Remove" so as to cover both discharge and threat of discharge.
[26] Lemos, C.M., Some Shipowners' Views on TOVALOP and the Federation, in: Ten Years of TOVALOP, 1979, ITOPF, p10.
[27] Explanatory Notes, TOVALOP and CRISTAL, Revised Edition, Tindall, Riley & Co., February 1994, p3. See also White, C., The Voluntary Oil Spill Compensation Agreements- TOVALOP and CRISTAL, in: De la Rue, C. (ed.), Liability for damage to the marine environment, London, Lloyds of London Press, 1993, p57-70.
[28] Becker, G. and Ghee, P., The Development of TOVALOP and the 1978 Changes, in: Ten Years of TOVALOP, 1979, ITOPF, p6.
[29] Becker, G., Acronyms and Compensation for Oil Pollution Damage from Tankers, Texas International Law Journal, Vol. 18, 1983, p475-481.
[30] See particularly the view expressed by Hetherington, A. (the managing director of the Federation from 1971 to 1979) at The Growth of the Federation and the Establishment of Other Compensation Agreements, in: Ten Years of TOVALOP, 1979, ITOPF, p3-4.

Arrow, Ocean Grandeur, Pacific Glory, Metula and Argo Merchant. If it were not for the TOVALOP Agreement, various governments would not have been able to obtain compensation for their clean up costs.

3. CLC

Not long after the TOVALOP had become viable, the IMCO convened in Brussels a Diplomatic Conference which produced in December 1969 the Civil Liability Convention. The CLC abandoned the traditional concept of fault liability and imposed strict liability instead. Meanwhile, the strict liability imposed on the shipowner under the CLC was only limited to a certain amount which is known as the limitation of liability. Compulsory insurance was also included as a guarantee for effective implementation of the CLC. The details on how the CLC was introduced and evolved will be addressed further below and later in Chapter 4.

4. CRISTAL

4.1 Coming into being

The prospect of another convention, involving a levy on cargo owners was of great concern to the oil companies who transport millions of barrels of oil around the world every day. A memorandum was put together setting out the concept of an oil-company-sponsored fund which would be acceptable to all parties. Agreement among the sponsors of the Federation and the TOVALOP was obtained and drafting began, in conjunction with the OCIMF, of the document which was to become the CRISTAL Agreement, being the Contract Regarding an Interim Supplement to Tanker Liability for Oil Pollution. It was signed on 14 January 1971 and came into effect on 1 April 1971.[31] Within 3 months after signing, over 50% of the world's seaborne crude oil and fuel oil had become signatories.[32] Within 3 years, the receivers of over 90% of the world's cargoes of crude and fuel oil are parties to the CRISTAL.[33]

CRISTAL is an agreement among oil cargo interests (oil companies as owners of persistent oil cargoes). Any company engaged in the production, refining, marketing, storing or trading of oil, or which receives oil in bulk for its own consumption or use can become parties to the CRISTAL. The Oil Companies Institute for Marine Pollution Compensation Limited (the Institute), a Bermuda association of which all parties are shareholders, is set up to administer the CRISTAL Agreement.

The prime function of CRISTAL was to supplement the pollution damage compensation available under TOVALOP, the CLC or other compensation regimes, pending the preparation and ratification of an international oil pollution compensation fund.[34] Hence, CRISTAL is designed as a residual scheme. Before a claimant can recover under the CRISTAL, he must make reasonable efforts to recover from other possible sources of compensation. Later, CRISTAL was

[31] For the contents of the CRISTAL, see International Legal Materials, Vol.9, 1971, p45.
[32] This per Clause III (A), from Becker, G., 1974, p614.
[33] Becker, G., 1974, p614.
[34] See Preamble of the original CRISTAL.

changed to provide, in addition to supplemental compensation for pollution damage, encouragement to tanker owners to undertake cleanup activities by offering reimbursement for a portion of an "Owner's Clean-Up Costs".[35]

CRISTAL established a fund from contributions of participating oil companies. It will reimburse the shipowner incurring cleanup costs, for the amount exceeding $125 per gross ton or $10 million whichever is less (i.e. above TOVALOP limits), up to $30 million.[36] In other words, CRISTAL will reimburse a tanker owner for excess costs of cleanup. This provision is designed to encourage tanker owners not to hold back when prompt cleanup of a spill will avoid or mitigate pollution damage, and reflects the provisions of a Memorandum of Understanding between a number of leading P & I underwriters and the Institute.[37]

As for persons sustaining pollution damage (other than owner's clean-up), CRISTAL will compensate them to the extent that recovery for the damage is not available from other sources, once the victims have exercised due diligence to make a recovery, and up to the above-mentioned amount.[38]

The CRISTAL Fund had amounts from between 3 to 5 million US dollars at its disposition.[39]

4.2 Influence of CRISTAL

CRISTAL is considered a "fair effort to meet the concern" that the CLC 1969 could not provide adequate compensation.[40] It later proved to be the basis on which the Fund Convention 1971 was drafted.[41]

The industry scheme whereby tanker owners and oil importers undertook voluntary liability to pay compensation for oil pollution damage not only had an impact on the world opinion, but also relieved pressure on national governments to introduce their own unilateral solutions.[42]

5. Fund Convention

The declared goal of the 1969 Conference, being finding a solution to provide sufficient compensation for oil pollution victims was not achieved in all cases, or at least it could not be reached through the CLC alone. The conference thus passed a Resolution which required establishing some form of an international compensation fund supplementary to the CLC regime.

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[35] See 1973 version of CRISTAL, from Becker, G., 1974, p614.
[36] Clause IV (C) (1) of CRISTAL.
[37] Becker, G., 1974, p616.
[38] For further details, see Becker, G., 1974, p616-617.
[39] See Gold, E., Handbook on marine pollution, Arendal, Gard, 1985, p117.
[40] Doud, A. L., Compensation for Oil Pollution Damage: Further Comment of the Civil Liability and Compensation Fund Conventions, Journal of Maritime Law and Commerce, Vol.4, No.4, 1973, p541.
[41] Hetherington, A., The Growth of the Federation and the Establishment of Other Compensation Agreements, in: Ten Years of TOVALOP, 1979, ITOPF, p3.
[42] CRISTAL was considered as an important precedent in the literature since it showed that also the oil industry could, under pressure of the public opinion, take its responsibility for oil pollution damage. See Gold, E., 1985, p26.

To this end, a conference was held in Brussels from 29 November to 18 December 1971, which resulted in the adoption of the Fund Convention 1971.

The Fund Convention set up an International Oil Pollution Compensation Fund (known as the IOPC Fund, or the Fund). The Fund is contributed by the oil industry based on the amount of oil they received annually.

The Fund was established to fill in the gap left by the CLC. Whether such a goal is reached will be further discussed in Section VII and later in Chapter 4.

6. Evaluation

The industry schemes operate on a voluntary basis and hence could be brought into effect immediately without lengthy procedures. TOVALOP was signed and came into effect in 1969 and CRISTAL in 1971; while as for the international conventions, it took longer time at least years before they could come into effect. [43] The industry schemes have the advantages of speedy reaction and adaptation to the changing situation, while the ratification of international conventions is a very slow process. On the other hand, one important reason for the quick reactions from the industries was that they tried to offer on a voluntary basis the payment of reasonable costs for preventive and clean-up measures to avoid the harsh consequences in the international conventions (e.g. the introduction of strict liability).[44]

Sufficient compensation for oil pollution victims is a problem that requires a prompt reaction. In this respect, the industry seems to be able to serve the need of the international community better than the international conventions. However, the international conventions on a long run can be more effective in the sense that they impose a responsibility on the contracting countries for the implementation of the conventions at national level. This compulsory effect is lacking in the voluntary industry schemes.

It should be noted that the TOVALOP and CRISTAL are called voluntary schemes in the sense that the decision on whether or not to participate is voluntary. The parties under these agreements agree to assume responsibilities for which they would not otherwise be held liable under the existing laws. However, once they have become parties to the agreement, there is a contractual obligation to meet all the terms and conditions of the applicable agreement or contract.[45] Compensation can be obtained by claimants without recourse to legal proceedings which may prove lengthy. However, it does not mean the parties to the voluntary agreements would waive their rights of recovery from third parties whose fault may have contributed to the incident that caused the pollution.[46]

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[43] Røsæg, E., The Impact of Insurance Practices on Liability Conventions, Proceedings from the European Colloquium on Maritime Law, Oslo, 7- 8 December 2000, p125.
[44] Tanikawa, H., A Revolution in Maritime Law: A History of the Original Legal Framework on Oil Spill Liability and Compensation, The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, IOPC Fund, p53.
[45] White, I., Laws of the Sea – TOVALOP & CRISTAL, Marine Pollution Bulletin, 1988, Vol. 19, No.6, p251-255.
[46] White, I., 1988, p255.

VI. The 1969 Civil Liability Convention

1. Introduction

1.1 Pre-1969 situation

Prior to the Torrey Canyon incident in 1967, there was no special legal instrument dealing particularly with the oil pollution compensation. It was only after the Torrey Canyon incident in 1967, the world realized that it was necessary to design a devise in this respect.

After the Torrey Canyon, in April 1967, the British government submitted a note to the third Extraordinary Session of the IMCO Council requesting in addition to the preventive measures of technical nature, the changes in international maritime law on liability, more particular, liability independent of negligence, amendment to the limitation of liability, compensation, insurance and special principles to cover costs of fighting pollution.[47]

The IMCO in reaction has set up a Legal Committee to deal with the legal issues revealed by the Torrey Canyon incident. Two major legal issues were raised: The first was to what extent a coastal state threatened or affected by a casualty outside its territorial sea can intervene to protect its interest; the second issue is who (the shipowner or cargo owner, either jointly or severally) should take the responsibility to compensate the damage incurred to third parties and the nature, extent and amount of this liability.[48]

1.2 Preparatory work by CMI

Before the discussion on the IMCO conventions starts, it shall be acknowledged that the CMI has contributed to the discussion at a preliminary stage.

On 26 May 1967, the CMI set up an International Sub-Committee chaired by Lord Devlin (President of the British Maritime Law Association) to study the legal issues particularly on the liability for marine oil pollution as revealed by the Torrey Canyon incident and to co-operate with the IMCO on the private law issues. It designed a questionnaire on the necessity of a new international system, the nature of the liability, the limitation of liability and the compulsory insurance. Eighteen of the member national associations of maritime law replied to the questionnaire and gave their respective opinions. The members had indicated to a great extent agreements on some fundamental issues: all member associations were in favor of a limitation of liability of the shipowner in respect of oil pollution damage, and a substantial majority was against the liability in the absence of fault.[49]

The CMI has convened a conference in Tokyo from 30 March to 4 April 1969, whereby a draft of

[47] IMCO Doc.C/ES.II/3, Lessons Arising from the Incident of the Torrey Canyon, 18 April 1967.
[48] Official Records of the International Legal Conference on Marine Pollution Damage 1969 (OR 1969), IMO, 1969, p7.
[49] CMI document TC-1 to TC-21, p2 – 159.

a convention on civil liability for oil pollution was produced. This draft convention was based on fault liability of the shipowner (with reversal of burden of proof) up to a certain limit and accompanied with the mechanism of compulsory insurance. The CMI draft was later submitted to the IMCO and some provisions were adopted in the IMCO draft. Due to the division of opinions within the Legal Committee, fault liability and strict liability were both included in the draft of the IMCO and left to be decided at the Diplomatic Conference.

1.3 Convening of the conference

In order to come up with an international regime on these issues, the International Legal Conference on Marine Pollution Damage was convened at Brussels from 10 to 29 November 1969. 48 countries have sent delegations to participate in the Conference, some additional 6 countries and some international organizations were present as observers.[50]

The Conference was organized in three main bodies: the Plenary and two Committees of the Whole. Committee of the Whole I dealt with the public law issue – the right of a coastal state to intervene to prevent, mitigate or eliminate actual or anticipated oil pollution damage arising from a maritime casualty. Committee of the Whole II dealt with the private law issue – the liability and insurance in respect of oil pollution damage.[51] Since what concerns the research topic is how the current civil liability system was founded, only the documents from the plenary session concerning private law issue and the Committee of the Whole II (hereunder referred to as the Committee II) will be employed for discussion in this chapter.

As mentioned before, the sources of documentation – the official proceedings kept by the IMO are only about the debates among delegations during official sessions concerning specific issues. The informal meetings among delegates to build up negotiation positions were not traceable, although they were crucial to the result of the conference. It is thus very difficult to judge merely on the basis of the preserved documents by the IMO how such a system was actually built up. Nevertheless, hopefully by making use of the available documents, it will be possible to identify the interest groups playing roles behind the scenes and thus this will enable a critical review of the advent of the international conventions.

The Committee II has met in twenty sessions between 12 and 26 November 1969 to discuss the liability and compensation for oil pollution damage. Then it presented a report at the plenary meeting on 26 November 1969, which contained in its Annex the revised draft convention. This was adopted at the plenary session, which became the well known CLC 1969.

[50] LEG/CONF/INF.1/Rev.2, OR 1969, p11 – 26.These include, inter alia, the International Labor Organization, OECD, CMI, International Chamber of Shipping and International Chamber of Commerce.
[51] OR 1969, p7. In addition, there were Committees with more technical or procedural functions, being the Credentials Committee and the Committee on Final Clauses. The Credentials Committee was in charge of considering if the delegations have been properly accredited to vote and participate.

2. Principle of strict liability

2.1 General overview

The question on what should be the basis or the nature of liability (should it be based on strict or fault liability) and on whom the liability should be imposed (should it be imposed on the part of cargo or on the ship) are crucial for the whole liability and compensation system, and most of the debate time (more than a week) at the conference was dedicated to the debate on these two issues.

The Legal Committee provided two alternatives for the liability system in its proposal due to the complicated nature of such issue: Alternative A was fault liability on the shipowner with reversal of the burden of proof, which was actually based on the CMI model; Alternative B was strict liability which was originally proposed by the French delegation.[52]

The opinions of the delegations were largely divided among different schemes at the initial stage: The French and the US delegations supported strict liability on the part of the ship; the Irish, Netherlands and Danish delegations supported strict liability on the cargo;[53] Greece supported fault liability on the cargo;[54] Japan was in favor of fault liability on the ship;[55] Canada proposed a joint liability system.[56] This was also shown by the result of the first two rounds of vote, either no substantial majority in favor of any of the plans was acquired, or too many countries have abstained whereby no agreement could be reached.

2.2 Main arguments for different schemes

2.2.1 Strict liability on the cargo

Ireland, the Netherlands, Sweden and Denmark were among those who advocated strict liability on the part of cargo,[57] although out of different reasons. The main arguments in favor of liability on the part of the cargo as presented at the conference can be summarized as follows:

First, the activity of maritime transport of oil is not dangerous in itself, but it is the goods carried that posed the risks to cause damage.[58] It is thus a risk inherent in the cargo, not in the ship. Hence, the cargo interest would be the appropriate party to assume liability. The Netherlands also referred to the nuclear industry where the liability was imposed on the operator of nuclear

[52] LEG/CONF/4, OR 1969, p458-460.
[53] LEG/CONF/4, OR 1969, p440, see the comments from the delegation of the Netherlands.
[54] LEG/CONF/C.2/SR.5, OR 1969, p642.
[55] LEG/CONF/C.2/SR.3, OR 1969, p626.
[56] LEG/CONF/C.2/SR.4, OR 1969, p633.
[57] Sweden was in favor of "absolute liability" on cargo, although it argued that this needed "legal justification". According to his delegation, the strict liability had the advantage of quicker settlement, less litigation and less costs compared with the fault liability. See LEG/CONF/C.2/SR.4, OR 1969, p633-634. As for Denmark, its first preference would have been fault liability, but it supported strict liability on cargo in view of reaching a compromise agreement, see LEG/CONF/C.2/SR.6, OR 1969, p645. Switzerland supported the Irish proposal of strict liability on the cargo and the establishment of a compensation fund, but it reserved the right to change its views to support fault liability as it considered that the primary concern was to promote the unification of maritime law, LEG/CONF/C.2/SR.5, OR 1969, p641.
[58] LEG/COMF/C.2/SR.3, OR 1969, p626 and 628, see the opinions of the delegations of Ireland and Denmark.

installation who produced the obnoxious material. According to him, the same reasoning should be applied to the oil industry as well.[59] Moreover, as stated by the Irish delegate, pollution damage caused by oil cargo can be much greater than that caused by the ship itself.[60]

Second, the fact of more large-size tankers coming into existence (which posed increased risks of pollution to the marine environment) came from the need of the oil companies to expand their own business.[61] Hence, the pollution risks are posed by the growing need of oil transport by sea, being "industrial risks". Since it was created primarily for the interest of the oil industry, it would be equitable for the part of the cargo to assume liability.[62]

From the victim's perspective, the parties who suffer pollution damage often include parties who were not involved in maritime transport. The factor of "negligence" would leave the innocent victims or particularly the public authorities who have taken measures to eliminate or prevent pollution damage with insufficient compensation. Hence, strict liability is necessary to protect the interests of the victims who are not capable of protecting themselves against the "industrial risks" created primarily for the oil industry. As a result, the strict liability on cargo should be justified.

Third, oil companies as the main beneficiaries of the activity of oil shipping are financially capable of paying huge amounts of compensation. The Indian delegation also pointed at the fact that the oil industry "owned 30% of the oil tankers and controlled by long-term charters another 40% of the world tanker fleet", and hence they were actually "important carriers of oil" themselves. According to his delegation, the existence of TOVALOP has indicated the willingness of oil companies to pay premiums to the P&I Clubs on behalf of the tanker owners who held long-term charters from them.[63] It is indeed the case from the statistics that the oil companies owned or chartered a substantial amount of tankers on the market for oil shipping.

The Danish delegate pointed at the fact that the insurance costs at present already amounted to 12% to 30% of the ship's operation costs. It would cause too much burden to the shipowner and hence unfair to hold the shipowner liable.[64] The Swedish delegate even suggested that the issue of insurance could be easily solved if the liability were to be laid on cargo. This was because "the capacity of the largest oil companies went far beyond anything that could be required". He believed that a new market could always be created, as was the case with nuclear ships. If liability were to be imposed on cargo, there would be sufficient guarantee for liability.[65] Irish delegate pointed out that the capacity to take responsibility should be proven in some form of

[59] LEG/CONF/4, OR 1969, p439 – 440, comments from the Netherlands delegation.
[60] LEG/CONF/4, OR 1969, p449.
[61] LEG/CONF/C.2/SR.2, OR 1969, p623-624. The Indian delegation was also one of the supporters of cargo liability.
[62] LEG/CONF/4, OR 1969, p439 – 440, comments from the Netherlands delegation; LEG/CONF/C.2/SR.3, OR 1969, p626.
[63] LEG/CONF/C.2/SR.2, OR 1969, p624. This figure might not be accurate, the Norway delegate said the oil companies were responsible for about 50% of maritime transport. However, the Norway delegate did not give further explanation on the precise meaning of "responsible for", either it means the ownership or if it includes the situation where the oil companies have long term charterparty with the shipowner and the situation of demise charter. See LEG/CONF/C.2/SR.4, OR 1969, p633.
[64] LEG/CONF/C.2/SR.3, OR 1969, p628.
[65] LEG/CONF/C.2/SR.4, OR 1969, p634.

compulsory insurance, and according to him, this would not impose a serious financial burden on the oil industry.[66]

Fourth, although fault liability was the most common regime in all systems of law at the time, there were often cases where the tanker was not to blame and had no fault on his part, thus the victim would get no remedy from the tanker under the existing legal rules. Or when the tanker belonged to a single-ship company, the insolvent tanker owner might not be able to pay compensation with his very limited assets. In such cases, it would be very likely that either the shipowner would not be held liable under existing law since he was not at fault, or the shipowner was insolvent, hence it was argued that to hold the cargo owner liable will avoid such complication and provide adequate compensation to the victims.[67]

The Irish delegate proposed that liability should be primarily laid on the "shipper", hence on the part of the cargo.[68] His argument was that the fund levied on oil already existed as shown by the industry scheme TOVALOP, and it can be extended to meet the strict liability on cargo.[69] This proposal was supported by e.g. Netherlands, Sweden who also agreed that the shipper should be designated as the person liable.[70] However, the Irish proposal was criticized by the UK and French delegation, who had the firm view that liability should be imposed on the shipowner.[71] In reply to the comments from the UK concerning the difficulty in identifying the shipper, the Irish delegate defended that the shipper remained "a constant factor known to the (tanker) owner even if not to the victim", and he proposed a sanction in the Convention in order to ensure that the shipper would be identified.[72] The Swedish delegate argued that the master of the ship would always have information on who is the shipper despite the practice that ownership of cargo might change during a voyage.

2.2.2 Strict liability on the ship

It seems the scheme of strict liability on the shipowner (which was drawn upon the proposals made by the French delegation) did not gain wide support in the beginning. Countries like Spain, the US,[73] Poland, Australia,[74] United Arab Republic, Belgium and German were in favor of this alternative. The reasons to support strict liability on the ship are mainly as follows:

First, the French delegate argued that the risk of oil pollution was not only created by the nature of the goods, but also by the particular form of carriage, being maritime transport with tankers.[75]

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[66] LEG/CONF/C.2/SR.4, OR 1969, p635.
[67] LEG/COMF/C.2/SR.3, OR 1969, p626, see the opinion of the Irish delegation.
[68] The Irish delegate proposed that liability should be primarily laid on the "shipper". If the shipowner fails to identify the party liable from the part of cargo, he will be considered "constructive shipper" and resume liability. Moreover if the ship is at fault, the cargo can recover from ship. Hence the cargo should resume strict liability, while the liability of the ship remains to be based on fault and limitation of liability. LEG/CONF/4, OR 1969, p447, 449 and 451.
[69] LEG/CONF/4, OR 1969, p449.
[70] LEG/CONF/4, OR 1969, p440.
[71] LEG/COMF/C.2/SR.3, OR 1969, p626.
[72] LEG/CONF/C.2/SR.4, OR 1969, p635.
[73] LEG/CONF/C.2/SR.3, OR 1969, p630; LEG/CONF/4, OR 1969, p464.
[74] The Australian delegation agreed with the strict liability of the shipowner since it had in its domestic law the principle of strict liability on shipowner caused by oil pollution. LEG/CONF/C.2/SR.3, OR 1969, p629.
[75] LEG/CONF/C.2/SR.5, OR 1969, p639.

Second, according to the French delegate, although the oil companies had a strong financial capacity, they could still avert the claims by legal devices (e.g. establishment of subsidiary companies) to become insolvent.[76]

Third, a good compensation system should give incentives to prevent casualties. The shipper (and the cargo owner) could exercise no control over the cargo while it was on the high seas, the carrier would be the only one who had the capacity to prevent casualty on the high seas. If the liability were to be imposed on the part of cargo, the master or his crew who has the actual control over the cargo will be given no incentive to take due care.[77]

Fourth, the liability on the shipper would be too complicated to be applied. The first problem would be the difficulty in identifying the real cargo owner as the ownership might change during a voyage, which is considered a normal practice.[78] The ownership of cargo is evidenced by the bill of lading. As a negotiable document, the bill of lading may change hands while the cargo is still at sea and this leads to the change of ownership. It would be very difficult for the victims to identify in whose hands the bill of lading is when an incident has happened. If the victims wanted to identify the shipper (in case where the Irish proposal on shipper's liability is accepted), they would have to consult the contract of sale, although this type of contract should not be invoked by them.[79] In contrast, the shipowner would be more easily identified as argued by the UK delegate. The second problem arises when bunker was involved as argued by the French delegation. Once bunker was involved, it would be difficult to distinguish the source of pollution whether it is the oil cargo or the bunker.[80] It would be unfair if the cargo owner were to be held liable even for the pollution damage caused by bunker. Hence, the liability on the part of cargo would indeed cause difficulty in application.[81]

Fifth, according to the UK and French delegations, the Irish proposal to impose liability on the shipper would cause difficulties in insurance.[82] There would be a danger of double insurance (the shipper would take liability insurance under the convention and the shipowner would take insurance for his normal liability and against default by the shipper). Moreover, the Irish proposal made no use of the existing mechanism of P&I Clubs.[83]

On the other hand, the existing liability based on fault was not sufficient: considering the magnitude of the potential damage, the existing law based on fault could not provide adequate compensation since such liability was restricted. Moreover, the tanker involved was not always

[76] LEG/CONF/C.2/SR.5, OR 1969, p639.
[77] LEG/CONF/C.2/SR.5, OR 1969, p638. This was advocated by the UK delegation in favor of liability on the shipowner, although the UK delegation was in favor of fault liability.
[78] LEG/CONF/4, OR 1969, p457-458, see the comments from the US delegation.
[79] Wu, C., 1996.
[80] LEG/CONF/C.2/SR.5, OR 1969, p639, France. Bunker is fuel oil.
[81] LEG/CONF/C.2/SR.5, OR 1969, p638.
[82] LEG/CONF/C.2/SR.5, OR 1969, p638 – 639.
[83] According to the UK delegate, the "best channel for providing compensation was one which was simple in application, made use of existing procedures and offered an incentive to prevent casualties". According to him, the Irish proposal to impose liability on the shipper failed to satisfy these criteria. See LEG/CONF/C.2/SR.5, OR 1969, p638.

at fault, and the proof of fault in case of oil pollution was extremely difficult.[84] In addition, the concept of fault varies in different legal systems.[85]

Hence, the French delegation considered that the strict liability on the shipowner would be the only guarantee for an optimal compensation, the new liability system should be built upon "risk", which was inherent in the carriage of oil. Moreover, this was already the basis for other international conventions such as those related to nuclear ships, damage caused by aircraft and space damage.[86] There were three international conventions concerning nuclear substance at the time: the Paris Convention on third Party Liability in the Field of Nuclear Energy of 29 July 1960 (with a supplementary convention on 31 January 1963), the Brussels Convention on the Liability of Operators of Nuclear Ships of 25 May 1962 and the Vienna Convention on Civil Liability for Nuclear Damage of 21 May 1963. They impose strict liability on the operator.

2.2.3 Fault liability on the shipowner

Alternative A in the draft convention was based liability on fault and introduced a reversal of the burden of proof on the shipowner. It should be noted that under this Alternative, the fault of the shipowner's servant or any other person in the operation of the vessel could render the shipowner liable.[87] The delegations supporting the fault liability mainly included Finland, Japan, UK, Liberia and the USSR delegations.

The main arguments in favor of fault liability on the shipowner are as follows:

First, as observed by the USSR delegation most of the recent disasters were caused by negligence of the operator of the ships rather than of natural causes, and hence fault liability will be most suitable as a remedy for this situation.[88] The USSR delegation considered that the principle of fault was broadly recognized in international maritime law and the only exception was the International Convention Relating to Liability of Operators of Nuclear Ships, where the "objective liability" of operator was justified by "special causes" related to nuclear damage, such as the impossibility to exercise control over nuclear energy, the exceptional extent of nuclear damage; while in case of oil pollution, there were no such causes.[89]

Second, as argued by the UK, since most oil spills so far were caused by fault and the strict liability could catch only a few cases since most oil spills so far. Thus, the strict liability "will result in a reduction in the insurance cover available to shipowners". Hence, the market capacity would be uncertain and premiums would be doubled at least.[90]

Norway put forward the insurance argument that the responsibility of the shipowner must be

[84] LEG/CONF/C.2/SR.11, OR 1969, p681, see the opinion given by the Cameroon delegation.
[85] LEG/CONF/C.2/SR.5, OR 1969, p642, speech by German delegation.
[86] LEG/CONF/C.2/SR.4, OR 1969, p632.
[87] Wu, C., 1996, p57.
[88] LEG/CONF/C.2/SR.5, OR 1969, P640. The UK delegation made the same observation, seeLEG/CONF/4, OR 1969, p463.
[89] LEG/CONF/4/Add.1, OR 1969, p510.
[90] LEG/CONF/4, OR 1969, p463.

insurable and the liability on the shipowner must be limited to his available coverage.[91] Norway also noted that in order to get the highest insurance coverage, the liability should be based on fault.

Third, according to the UK delegation, the fault liability with a reversal of the burden of proof would substantially improve the position of the claimant as the shipowner would bear the onus of proof. However, this argument was criticized by delegations like US. According to the US delegate, the shipowner as the one who had actual control over the ship could easily prove that he had no fault on his part or his agent during the operation of the ship. In that case the burden to prove shipowner's fault would be shifted back to the claimant. Hence, the burden of proof in the last resort would lay with the victims.[92]

2.2.4 Joint liability

The Canadian delegation proposed that the parties engaged jointly in the maritime venture should jointly share the responsibility and thus the liability should be shared between the shipowner and the shipper.[93]

According to the Canadian proposal, first liability would be imposed on the ship up to certain limit; above this limit, liability would lie on the cargo. If the ship was not at fault, the cargo would then be responsible for the entire damage. Hence, this proposal provided strict liability on both ship and cargo with the ship in the first instance assuming liability. Moreover, the Canadian delegation pointed that the limitation of liability placed on the cargo should be very high. [94]

Although the liability imposed on cargo would increase the price of oil, according to the Canadian delegation the added cost would be minimal (only 0.04%).[95]

2.3 Decision on strict liability of the shipowner

2.3.1 First round vote

After almost three full days' discussion on the issue of the liability system from the 12th till the 14th of November 1969, no agreement was reached. Different proposed schemes imposed liability on different parties. The discussion came into a deadlock.

The Belgian delegate submitted a proposal on an international compensation fund on 13th of November 1969.[96] The idea of an international compensation fund was originally developed by the French legal experts.[97] This scheme immediately attracted the attention of many delegations. Some delegations had the hope that the fund could ultimately provide adequate compensation for

[91] LEG/CONF/C.2/SR.4, OR 1969, p633.
[92] LEG/CONF/C.2/SR.3, OR 1969, p630.
[93] LEG/CONF/C.2/SR.4, OR 1969, p633.
[94] LEG/CONF/C.2/SR.7, OR 1969, p651.
[95] LEG/CONF/C.2/SR.4, OR 1969, p633.
[96] LEG/CONF/C.2/WP.2, OR 1969, p553 – 562.
[97] LEG/CONF/C.2/WP.2, OR 1969, p553; LEG/CONF/C.2/SR.4, OR 1969, p635. Greece also advocated such a fund, see LEG/CONF/C.2/SR.3, OR 1969, p627.

victims.[98] They hoped that the establishment of such a fund would solve lots of difficulties encountered with the liability system and the insurance capacity.[99] On the other hand, there were some other delegations who adopted a more cautious view concerning the fund.[100] They realized that such a fund was a new idea, and it needed further exploration.[101] The debate concerning such a compensation fund, however, did not go further in detail at this stage.

At the afternoon session on 14 October 1969, realizing that the long discussion did not produce any agreement, the chairman called for vote for the delegations to express their preferences among the four possibilities that have been extensively discussed so far: strict liability on the ship, fault liability on the ship, strict liability on the cargo, or a joint liability on ship and cargo with the first liability on ship and remaining liability on cargo.[102] The first roll-call vote revealed that there was no substantial majority in favor of any of the liability systems.[103] It was indeed difficult to mitigate the difference at this stage as the Irish delegate observed: those who supported strict liability on cargo would not support the strict liability system unless it was imposed on cargo.[104] Under this situation, some delegations expressed their willingness to adapt their opinions towards a compromise, while others were still strongly insisting on their own positions. The Canadian proposal on a joint liability and the Belgian proposal on an international compensation fund were both mentioned as a possible compromise solution.[105]

2.3.2 Second round vote

The second indicative vote took place on 17 November 1969, and the delegations were required to express their second preference, which should be different than their first choice in the first round vote.[106] Unfortunately, 19 out of the 36 present delegations have abstained from the vote.[107] This of course could not produce any solution.

Seeing the result of the second indicative vote, lots of delegations turned their attention to the Belgian proposal of a compensation fund and some even had the hope that the fund could solve the problem under the envisaged liability system.[108] The UK delegate Lord Devlin pointed that

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[98] E.g. Sweden, LEG/CONF/C.2/SR.9, OR 1969, p665; LEG/CONF/C.2/SR.12, OR 1969, p686.

[99] LEG/CONF/C.2/SR.5, OR 1969, p644, India. The Netherlands even considered that a combination of the cargo liability with an international compensation fund could be less costly than insurance of all oil tankers in the world, LEG/CONF/C.2/SR.5, OR 1969, p643.

[100] Particularly, the delegations of the UK, the US and the USSR, see LEG/CONF/C.2/SR.12, OR 1969, p685; Spain and Venezuela, see LEG/CONF/C.2/SR.9, OR 1969, p665.

[101] USSR, UK, LEG/CONF/C.2/SR.12, OR 1969, p684.

[102] LEG/CONF/C.2/SR.6, OR 1969, p646.

[103] The result is as follows: strict liability on the ship – 14 votes, fault liability on the ship – 8 votes, strict liability on the cargo – 10 votes, joint liability on ship and cargo – 4 votes. LEG/CONF/C.2/SR.6, OR 1969, p647–648.

[104] LEG/CONF/C.2/SR.7, OR 1969, p650.

[105] LEG/CONF/C.2/SR.7, OR 1969, p650 – 655.

[106] LEG/CONF/C.2/SR.7, OR 1969, p650.

[107] LEG/CONF/C.2/SR.8, OR 1969, p656 – 657. Result of the second preference voting: strict liability on ship – 7 votes, fault liability on ship – 3 votes, strict liability on cargo – 4 votes, joint liability – 3 votes, abstentions – 19 votes.

[108] As pointed out by the UK delegate some delegations hoped that the fund could provide "a way of meeting the gap over the cover offered by the insurance market", and could achieve "limits of liability above the insurance figure". (See LEG/CONF/C.2/SR.8, OR 1969, p657.) Norway believed that the ship liability jointly with a fund would guarantee full compensation to the victim no matter how much the share of liability was for the ship. (See LEG/CONF/C.2/SR.8, OR 1969, p658.) The Indian delegation said that the advantage of the fund was to be

the idea of fund fit in with ship liability and not compatible with the cargo liability. Hence, it should be decided first if the liability were to be laid on the ship or on the cargo. Moreover, he argued that the lower the limitation of liability to be adopted, the more important it would be to seek provision for the excess.[109] (Thus, the establishment of a compensation fund seemed to be justified by the limitation of liability. However, at that stage, the limitation of liability in case of marine oil pollution liability was not fully discussed yet, but such a limitation has a long tradition in maritime law for the carrier's liability for transportation of goods at sea.)

However, the issues of the establishment of a compensation fund, the insurance mechanism and limitation of liability were not discussed in detail yet. The decision with respect to the liability system could not rely on the undecided issues. Hence, the Chairman called for a vote to decide the main principles of the nature and the imposition of liability separately.

2.3.3 Final vote

Considering the difficulty reaching a compromise and feeling the time pressure to come up with some solution, the Chairman proposed to change the method to vote on the principle questions in separate stages. First it has to be decided if liability should be imposed on ship or on cargo, then other questions including if the party should be solely liable or the liability should be shared between the liable party and the compensation fund proposed by Belgium could be consequently decided.[110] This approach was adopted in the final vote taking place on 18 November 1969. It was decided that: first the liability should be imposed on the ship;[111] second, the fund should be established;[112] third, strict liability was decided with a slight majority.[113]

The Belgian delegate observed that such decisions were progress towards a compromise. However it was based on the assumption of the introduction of a fund which was proposed by his delegation but not thoroughly studied yet. He thus proposed a working group to be set up to study the fund and it was so decided.[114]

Although the international compensation fund was actually decided in the previous vote on the liability system, the necessity of such a compensation fund was reiterated during the discussion on the application of the fund (who should pay compensation in the first instance, the fund or the ship). According to the UK and Canadian delegations, a convention based on the IMCO draft would solve 95% of oil pollution cases, only 5% catastrophes could not be properly dealt with

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immediately available for the compensation of victims. (See LEG/CONF/C.2/SR.8, OR 1969, p659.) Sweden hoped that once the idea of the fund was clarified, certain problems could be solved. (See LEG/CONF/C.2/SR.9, OR 1969, p665.)

[109] LEG/CONF/C.2/SR.8, OR 1969, p657 – 658.

[110] LEG/CONF/C.2/SR.8, OR 1969, p659 – 660. Some delegations (particularly the UK, Indian) considered it appropriate to first decide who should bear the liability.

[111] Concerning whether the liability should rest on the ship or on the cargo, 25 (out of 38) votes were in favor of ship's liability while 13 votes against. LEG/CONF/C.2/SR.9, OR 1969, p664.

[112] Concerning whether the liability should be combined with an international compensation fund, there were 25 (out of 39) votes in favor and 7 against, 7 abstentions. LEG/CONF/C.2/SR.9, OR 1969, p665.

[113] The question on the nature of liability (strict or fault liability) was put to a vote. 22 out of 42 votes were in favor of strict liability, and 17 were in favor of fault liability, with 3 abstentions. LEG/CONF/C.2/SR.9, OR 1969, p665.

[114] See LEG/CONF/C.2/SR.9, OR 1969, p666 – 667.

under existing maritime law. However, the possibility to cover 5% large-scale oil casualties should not be abandoned.[115] If the goal of the envisaged convention was to compensate the victims in all cases, and the convention alone would not be able to reach the goal, then such a fund would be necessary to intervene.

The issue of the fund was studied within the working group and it has produced a report on 25 November 1969.[116] A majority of the working group considered that the fund should be contributed by cargoes, and no burden should be imposed on the states. The amount of the fund should be 30 million dollars.

2.4 Compromise decision

While waiting for the report from the Working Group, another issue whether liability should be imposed on the shipowner or on the operator came to debate, and soon it was decided on 20 November 1969 that liability should be imposed on the shipowner, not the operator.[117] As a result, the liability of the shipowner was basically finalized, but again, the issue of the legal basis for liability came back under discussion when the draft convention was discussed article by article. However, at this stage, delegations were mainly repeating the arguments before and there was no real advancement. The prevalent view was that at least some solution should be brought up so that the time and money spent on the conference would not be in vain. In order to accomplish such a task, the delegations invested all the hope in a compromise solution.

Under this situation, the UK proposal of a strict liability on the shipowner with a very high (by the standards at the time) limitation of liability came out on 24 November 1969.[118] This gained support of many delegations.[119] Lord Devlin considered its delegation's proposal a real compromise. Although it was based on strict liability, the liability was limited in a way which could meet some of the requirements of those who favored fault liability.[120]

There were also delegations who could not agree with the UK's proposal, mainly the Scandinavian countries (Denmark, Finland, Norway and Sweden) who meanwhile delivered another proposal.[121] In their proposal, the importance of the fund to balance the compensation was stressed. However, the debates at that stage seemed to be more procedural. Nevertheless, urged by the idea of coming with at least some kind of solution which would be better than nothing under the current legal rules and the idea of a compromise, the UK proposal was adopted by a 35 to 3 vote, with 3 abstentions.[122]

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[115] LEG/CONF/C.2/SR.12, OR 1969, p685-686.
[116] LEG/CONF/C.2/WP.45, OR 1969, p604.
[117] LEG/CONF/C.2/SR.12, OR 1969, p694.
[118] LEG/CONF/C.2/WP35, OR 1969, p596 – 598.
[119] The supporters of the UK proposals include Germany, France, Ghana, Ireland, India, Italy, the Netherlands, Spain and the US. See LEG/CONF/C.2/SR.17, OR 1969, p727.
[120] LEG/CONF/C.2/SR.17, OR 1969, p728 – 729.
[121] LEG/CONF/C.2/WP38, OR1969, p599 – 600.
[122] LEG/CONF/C.2/SR.17, OR 1969, p738.

2.5 Evaluation

a. Through the examination of the debate on the liability system at the 1969 conference, it is found that there were some questions that were the core of the debate:

First, it is reasonable to assume that those who create the risk of pollution should bear the consequences as pointed out by the German delegation among others.[123] However, opinions diverged concerning who actually creates the risks of pollution, the cargo or the ship. The oil cargo might not be so dangerous itself, but it can pose great danger to the marine environment once it is spilled in the sea. On the other hand, the particular form of transportation, being oil transported by ships was also questioned if it was safe. Whether there is a safer means of transportation of oil remains a technical question. As far as transport of oil by tankers is concerned, safety standards can be improved to reduce the chances of an oil spill incident.

This may be related to the now well known principle of environmental law referred to as the polluter pays principle. However, how to identify the polluter remains a crucial issue.

Second, it was generally agreed that those who have actual control over oil cargo at sea might thus be in a better position to take prevention. But opinions varied on who in fact had the actual control, the shipowner, the carrier, or the operator. This is complicated because the terms in maritime law are not precise enough and also due to the complex nature of commercial trade. The shipowner, carrier and operator can be one and the same person, or different companies. Hence, to find an appropriate party to bear the liability was not an easy task at the 1969 conference.

Third, the identification of the shipowner or the cargo owner was also one of the central debated questions. The liability was finally allocated to the registered tanker owner as he was easily identifiable. Although there was the argument that the identity of the cargo owner may remain known at least to some party, e.g. the tanker owner, this was not accepted. Obviously, the registration system of the ownership of a vessel which may be known to public was considered more easily identifiable than the transport contract which was not known to the public.

Fourth, one major concern of the conference was that the convention should gain as much support as possible from the states involved, and a convention not accepted by the maritime nations would be of little use.[124] As a result, the finally accepted decision on the liability unavoidably took into account the interest of major maritime states.

Fifth, it was once argued that the oil company should be held liable due to its large financial capacity. However, the counterargument was that the oil company could reduce its financial capacity through legal devices. But it also shows the importance of financial guarantee in an effective liability system.

b. From the above examination of the introduction of the liability system, an observation can be

[123] LEG/COMF/C.2/SR.3, OR 1969, p627.
[124] Ireland, LEG/CONF/C.2/SR.5, OR 1969, p640; US, LEG/CONF/C.2/SR.4, OR 1969, p642.

made that different states have different interests at stake and hence they hold different positions in the negotiations. Some attempts have been made to identify the underlying interests of the participating countries. For instance, the states advocating liability on the part of cargo include, *inter alia*, Ireland, the Netherlands, Denmark, Greece and Norway.[125] All these states have strong shipping industry and large tanker fleets, and thus one may understand they did not want to see too severe liability imposed on their shipping industry. Japan held the opposite view that the liability should rest on the shipowner.[126] As a major oil import country, it is obviously in its interest to lobby for the ship liability. France and the US were in favor of strict liability on the ship. This can be understood as France was one of the major victims of the Torrey Canyon incident, hence, it had interest to protect its vulnerable coastline. Liberia and Finland supported fault liability on ship. Hence, strict liability was especially supported by countries with long coastlines that were thus exposed to larger pollution risks, and fault liability on the other hand was supported by many countries with big tanker fleets, who did not want to see too severe liability imposed on their shipping industries. The US was in a rather delicate situation as it has strong shipping and oil industry which might make it difficult to choose one particular position or rather a compromise of various interests.

This finding corresponds with the study of Sweeney in 1968 classifying the interests of some major states by using the Hudson Institute's classification of national economies.[127] It was anticipated in the study that the opinions of the interests of coastal states and shipowning states about the pollution problems would be considerably diversified.[128] This is in line with the findings that different states had different interests at stake, thus had different preferences for the liability system in their own interest.

c. It happened again and again that the discussions on the liability system could not advance due to the widespread division of opinions of the delegations. It was only until the prospect of a fund was proposed that a compromise became more likely as many delegations were immediately attracted to such a scheme. Thus the proposal of the Belgian delegation on an international compensation fund seems to be the turning point of the whole conference and broke the deadlock. It was probably thanks to the idea of a fund contributed by oil that the strict liability of the shipowner was accepted, although the idea of a compensation fund was not thoroughly discussed at that stage yet. The strict liability of the shipowner did not come alone as a solution to compensate the oil pollution victims; it was envisaged already at the time that the oil industry would contribute to the payment as well. Thus such a liability system seemed to be a mechanism to distribute the pollution costs between different parties involved.

d. Moreover, when strict liability imposed on the shipowner was finally decided, it was together with the limitation of liability included in a package as a compromise solution. Thus, one may wonder if the limitation of liability came to mitigate the harsh effect of strict liability, as

[125] LEG/COMF/C.2/SR.3, OR 1969, p628.
[126] LEG/COMF/C.2/SR.3, OR 1969, p626.
[127] Sweeney, J., 1968, p194-195. The Hudson Institute classified the future national economies as post-industrial, advanced industrial, mass consumption and pre-industrial.
[128] Sweeney, J., 1968, p195.

predicted by the Japanese delegate.[129] The issue concerning limitation of liability will be discussed below.

e. It should also be noted that the insurance issue was often quoted by the delegates to justify their positions on the imposition of liability and the nature of the liability. It seems to be the general view at the early stage that some form of insurance should be used to secure compensation for victims. The insurance issue will be discussed further below.

3. The Principle of limitation of liability

3.1 Limitation of liability in maritime law

The general principle in tort law was *restitutio in integrum*, being compensation to the full amount. However, in maritime law there has long existed a mechanism known as the limitation of liability. Under this rule, the shipowners (and their representatives) can limit their liability in the event of loss or injury to persons or things caused by or on board a ship.[130]

The precise origin of the limitation of liability as a concept is not entirely clear, and there are different opinions concerning this issue. Some scholars believed that the Amalphitan Table of Italy in the 11th century is "the earliest extant evidence of the shipowner's right to limit his liability".[131] Some other scholars believed that the right of a shipowner to limit his liability dated back to the 17th century, as exemplified by the provisions on limitation in the Statutes of Hamburg 1603, the Hanseatic Ordinances 1614 and 1644, and in the Maritime Code of Sweden 1667.[132] Most importantly, the Maritime Ordinance of Louis XIV 1681 codified maritime law in France and was used as a model in the Netherlands, Venice, Spain and Prussia.

The limitation mechanism has been widely employed in various areas related to shipping activities. The maritime world started actions to unify the rules on limitation of liability at the beginning of the 20th century with the conclusion of the Limitation Convention 1924.[133] This convention entered into force in 1931, but it had little practical value because major shipping countries did not adopt it.[134] It was hence abrogated by the Limitation Convention 1957.[135]

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[129] LEG/CONF/4, OR 1969, p438.

[130] Selvig, E., An Introduction to the 1976 Convention, in: The Limitation of Shipowner's Liability: The New Law, Sweet & Maxwell Institute of Maritime Law, 1986, p 3.

[131] See for instance Özçayir, O., Liability for Oil Pollution and Collisions, LLP, 1998, p300. See also Xia, C., Limitation of Liability for Maritime Claims, A Study of U.S. Law, Chinese Law and International Conventions, Kluwer Law International, 2001, p xiii; Donovan, J., The Origins and Development of Limitation of Ship owners' Liability, Tulane Law Review, 1979, Vol.53, p1001. According to Donovan, the Amalphitan Table (also known as Tables of Amalfi) was a commercial code complied for the 'free and trading Republic of Amalphia' (Italy).

[132] See for instance Griggs, P., Limitation of Liability for Maritime Claims: the Search for International Uniformity, Lloyd's Maritime and Commercial Law Quarterly, 1997, p370.

[133] International Convention for the Unification of Certain Rules Relating to the Limitation of the Liability of Owners of Sea-going Vessels, Brussels, adopted 25 August 1924, entered into force on 2 June 1931.

[134] There were 15 countries have ever ratified or acceded to the 1924 Convention, but 6 of them have denounced it. Countries that have ratified the 1924 Convention: Belgium, Brazil, Denmark (denunciation - 30. VI. 1983), Dominican Republic, Finland (denunciation - 30.VI.1983), France (denunciation - 26.X.1976), Hungary, Madagascar, Monaco (denunciation - 24.I.1977), Norway (denunciation - 30.VI. 1963), Poland, Portugal, Spain, Sweden (denunciation - 30.VI.1963), Turkey. See the website of the CMI: www.comitemaritime.org

[135] International Convention relating to the Limitation of the Liability of Owners of Sea-going Ships, adopted on

Later again this was replaced by the Convention on limitation of Liability for Maritime Claims 1976 (LLMC 1976).[136]

It is not only for the areas of marine oil pollution, but for other areas of maritime activities, there are limits on the shipowner's liability as well. For instance, for the carriage of goods by sea, the carriage of passengers by sea, and for the transportation of hazardous and noxious substance by sea, there are conventions allowing shipowners to limit their liability.[137]

However, limitation of liability is actually not a mechanism peculiar to maritime law. Carriers in other forms of transportation, e.g. transport by road and air, are also entitled to such a limitation right.[138] In the 1960's, when the nuclear energy started to be discovered, conventions were adopted which equally grant the right of limitation to the operator of nuclear power plant.[139] Hence, to limit the liability of the tortfeasor (very often shipowner in maritime law) to a certain amount is far from being unique to maritime law, but it is particularly important in the context of maritime law probably due to its long tradition and widespread influence in various areas of maritime activities. The limitation of liability is thus considered the backbone of maritime law and lots of other institutions in maritime law developed on the basis of the limitation system.[140]

3.2 The debate on the limitation of liability at the 1969 Conference

3.2.1 General debate on the principle of limitation of liability

The issue on limitation of liability was formally put into discussion on 18 November 1969, when the strict liability of the ship in combination with a fund had been decided by voting. But prior to this, when the nature and imposition of liability was discussed, some delegations already used

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10 October 1957, entered into force on 31 May 1968. Under the Limitation Convention 1957, a broad class of individuals can enjoy the right of limitation. These include the charterers, managers and operators. The limitation amounts were increased compared with the Limitation Convention1924.

[136] The LLMC 1976 was adopted on 19 November 1976 and entered into force on 1 December 1986. It has considerably increased the limitation amounts and expanded the individuals who are entitled to limit their liability. Under the LLMC 1976, a distinction was made between claims for loss of life or personal injury and claims for property damage.
The LLMC 1976 was amended later in 1996 through the Protocol of 1996 (also referred to as LLMC 1996), which was adopted on 3 May 1996 and entered into force on 13 May 2004. The LLMC 1996 further increased the limitation amount and introduced a tacit acceptance procedure for updating the limitation amounts.

[137] These conventions include, inter alia, the International Convention for the Unification of Certain Rules of law relating to Bills of Lading of 1924 and its 1968 Protocol, United Nations Convention on the Carriage of Goods by Sea 1978, which are the conventions for transport of goods by sea; the Convention relating to the Carriage of Passengers and Their Luggage, which is convention for the carriage of passengers by sea; International Convention on Liability and Compensation for Damage in Connections with the Carriage of Hazardous and Noxious Substances by Sea 1996, which is the convention for transportation of hazardous and noxious substances by sea.

[138] See Griggs, P., Limitation of Liability for Maritime Claims: the Search for International Uniformity, Lloyd's Maritime and Commercial Law Quarterly, 1997, p369. E.g. in the Convention for the Unification of Certain Rules relating to International Transportation by Air, known as the Warsaw Convention 1929, the air carrier's liability for the death or injury of the passenger is limited to $75,000 per passenger.

[139] See e.g. Paris Convention on Third Party Liability in the Field of Nuclear Energy, 1960.

[140] The P&I Clubs owe their origin to the first UK legislation which exposed shipowners to potential liabilities larger than the value of the ship plus pending freight. It provided a limitation fund based on a sterling multiple of the ship's tonnage and made it impossible to provide for liability coverage as part of the normal hull insurance. So it was said that the present system of the shipowner's liability insurance is therefore literally built on the concept of limitation. See Seward, R. C., The Insurance Viewpoint, in: The Limitation of Shipowners' Liability: The New Law, Sweet & Maxwell Institute of Maritime Law, 1986, p162.

the limitation to justify their own positions. It therefore seems to be an implicit common idea among the delegations that the right to limit their liability should be granted to the parties assuming the liability for oil pollution damage.

In Article III of the draft Convention which was the provision on compulsory insurance, there was a specific reference to the limitation of liability. Article III. 1 stated that the insurance amount should be "in the sums fixed by applying the limits of liability prescribed in Article V, paragraph 1".[141] It seems such a reference *de facto* confirmed the principle of limitation of liability to be established and it implied an internal link between the insurance and the limitation of liability. As stated by the Norwegian delegate during the discussion on the nature of liability, the shipowner's liability must be limited to certain amount which corresponded with the available insurance coverage taking into account the restricted insurance market capacity.[142] The UK delegation considered that the system of limitation of liability was justified by the mechanism of compulsory insurance.[143] According to the UK delegation, in order for the shipowner to obtain insurance cover, the limitation of liability as a principle should be accepted.

Since the establishment of a fund was decided, some delegations immediately (particularly the Netherlands, France) pointed out that the limitation of liability should be considered in a new light of the compensation fund as the existence of the fund would have an influence on the limitation.[144]

The UK delegate Lord Devlin said in view of the previous vote, that his delegation had assumed that strict liability in the first instance was to be placed on the ship and that the fund resumed liability at a secondary level. Hence, the ship should take responsibility up to certain limit, and only above this limit, the fund resumes responsibility. However, he considered that without knowing the nature of the fund (if the fund was to be liable in the first instance or not), the limit of liability could not be decided. Hence, he considered it appropriate to postpone the discussion on limitation until the working group could come up with some clarification about the doubts concerning the fund.[145] This opinion was accepted by majority of the delegations, particularly the US, the Netherlands, French and German delegations. There were some other delegations like Ireland, Liberia and Venezuela who considered that the primary liability should be imposed on the fund and it should pay in the first instance.[146]

Thus it was decided that the discussion on limitation of liability was deferred till the working group on the fund came up with a report.[147] Surprisingly, when the issue of the limitation of liability came back to the discussion on 24 November 1969, it was not discussed as a principle as such, but as part of the compromise solution proposed by the UK delegate, Lord Devlin.[148] The compromise solution offered by the UK was to impose strict liability on the shipowner with the

[141] LEG/CONF/4, OR 1969, p465.
[142] LEG/CONF/C.2/SR.4, OR 1969, p633.
[143] LEG/CONF/4, OR 1969, p487.
[144] LEG/CONF/C.2/SR.9, OR 1969, p667 – 669.
[145] LEG/CONF/C.2/SR.9, OR 1969, p668.
[146] LEG/CONF/C.2/SR.9, OR 1969, p668 – 669.
[147] LEG/CONF/C.2/SR.9, OR 1969, p669, the result of the vote to defer the discussion was 31 in favor of deferring the discussion and 1 against, with 1 abstention.
[148] LEG/CONF/C.2/SR.17, OR 1969, P727.

highest limitation of liability that was insurable. The main discussion at this stage concerned simply the specific amount of the limit. It seems the principle was implicitly accepted without further discussion.

3.2.2 The Amount of limitation of liability

In the draft provided by the Legal Committee, no specific figure was provided. It only mentioned that the shipowner is entitled to limit his liability to a certain amount per ton of the ship's tonnage, and the precise amount should be determined at the conference.[149] As mentioned before, since the limitation of liability as a principle was not decided until almost the last few days of the Conference, the figure of limitation of course could not be put to debate before the principle was decided.

It was raised that some factors needed to be taken into account when deciding on the specific amount of the limitation. These mainly included: first of all, this amount should provide adequate compensation to the victims which corresponds with the magnitude of the damage. Victim compensation was set out to be the aim for such an international regime. Almost all the delegations agreed that the limitation amount under the current system would be insufficient compared with the growing size of tankers.[150] According to the US, the limitation amount under the envisaged convention should cover at least all or substantially all losses.[151] Second, as argued by some delegations this amount should be the maximum amount that is insurable, given the fact that the insurance capacity is not unlimited,[152] taking into account the acceptance of insurers and the ability of shipowners to pay premium.[153] Third, the costs for cleaning up the oil pollution should also be taken into consideration.[154]

Moreover, it was also pointed out that a too high limit might put smaller ships in disadvantage, while a too low limit might favor the big size ship. So the limit should not cause injustice to ships of different sizes.[155] However, it was difficult to develop the objective criteria to decide on the amount of the limit, and moreover, the delegations stressed the importance of different factors, thus they proposed different figures based on different justification.

Denmark proposed to maintain the limit of 1000 francs contained in the 1957 Convention.[156] The UK proposed an amount two times of the current limit under the 1957 Convention.[157] The Netherlands argued that the limitation under the 1957 Convention should not apply to oil pollution damage. According to this delegate, if cargo liability were to be adopted, the limitation amount should be based on the gross tonnage of the load carried, as indicated in the bill of lading.[158]

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[149] LEG/CONF/4, OR 1969, p440.
[150] LEG/CONF/C.2/SR.8, OR 1969, p658, Norway, Ghana.
[151] LEG/CONF/4, OR 1969, p489, US.
[152] LEG/CONF/C.2/SR.17, OR 1969, p727, UK.
[153] LEG/CONF/4, OR 1969, p438, Japan.
[154] LEG/CONF/4, OR 1969, p440, Norway.
[155] LEG/CONF/C.2/SR.17, OR 1969, p732, India.
[156] LEG/CONF/4, OR 1969, p479.
[157] LEG/CONF/4, OR 1969, p487.
[158] LEG/CONF/4, OR 1969, p486.

The French delegation considered that the limitation figure under the 1957 Convention is obviously insufficient in case of major oil spill as shown by the Torrey Canyon case. Hence, the delegation proposed a higher amount of FFr.3000.[159] Such limits were higher than those in the 1957 Convention which offered 1000 francs for damage to property and 2100 francs for personal injury, since pollution damage generally consists of damage to property. The ceiling of 210 million francs corresponds to the maximum liability of a vessel of 105,000 tons.

The US delegation argued that if the negligence liability rule were adopted, then the limitation of liability should be higher; if the strict liability rule were adopted, the limitation of liability should be lower.[160] The US delegation also argued that there should be an overall limit and this should be limited to the amount whereby all or substantially all losses would be covered.[161] He also agreed that the compulsory insurance system justified a low limitation of liability.[162] The US delegate argued that it would be difficult to obtain insurance unless the limitation of liability was law.

As mentioned before, in the UK's compromise proposal, it proposed the limit to be 1900 FFR ($125) per ton with a ceiling of 210 million FFR ($14 million).[163] The French delegate considered this a reduced figure which should be acceptable and he proposed a minor change from 1900 FFR to 2000 as this would be more practical.[164] Although the limitation amount proposed by the UK was considered by some (like Canada) a too low figure, it was hoped that with the prospect of the fund the international regime could provide full indemnity eventually.

The limitation figure of 2000 FFR per ton with a ceiling of 210 million FFR was adopted together with the strict liability on the shipowner as a whole compromise solution.[165]

3.3 Evaluation

It may seem striking that at the 1969 conference, there was little debate on whether to accept the limitation of liability as a principle, and it was mainly justified in order to obtain insurance and as a compromise to counter balance the harsh effect of strict liability. It was probably due to the long history of the limitation system in maritime law that it was easily accepted in the oil pollution compensation regime. Moreover, the time pressure to come with an international regime may also contribute to the fact that there was little debate on limitation of liability as such. There was only some debate concerning the specific figures of the financial caps. The delegations agreed on some general principles, such as that the amount should provide adequate compensation to the victims, which corresponds with the magnitude of the damage;[166] this

[159] LEG/CONF/4, OR 1969, p481. Australia proposed 3100 FFR or a higher limitation amount, see LEG/CONF/C.2/SR.4, OR 1969, p503.
[160] LEG/CONF/4, OR 1969, p488 – 489.
[161] LEG/CONF/4, OR 1969, p489.
[162] LEG/CONF/4, OR 1969, p478.
[163] LEG/CONF/C.2/SR.17, OR 1969, p596 and p726.
[164] LEG/CONF/C.2/SR.17, OR 1969, p730.
[165] LEG/CONF/C.2/SR.17, OR 1969, p738.
[166] LEG/CONF/4, OR 1969, p489; LEG/CONF/C.2/SR.8, OR 1969, p658.

amount should be the maximum amount that is insurable, given the fact that the insurance capacity is not unlimited;[167] the caps should also take into account the costs for cleaning up the oil pollution.[168]

However, these general principles did not provide a justification for the particular amounts proposed. The finally adopted figure has doubled the existing financial caps under the Limitation Convention 1957, but it was considered still acceptable by most of the delegations since it would not be too high to stop the major maritime countries from ratifying the convention.[169] Therefore, the limitation of liability as adopted by the 1969 conference came as a compromise solution.

The traditional theory about the limitation of liability in maritime law holds that it is needed to encourage shipowners to invest in this highly risky maritime adventure. However, in the context of modern trade and commerce, it is doubtful if such a limitation is still justified.[170] Particularly, the arrangement of insurance is able to remove the danger of disaster from the shipowner, at least to a certain extent. Hence, the old theory on limitation of liability seems obsolete and unnecessary. Surprisingly, the 1969 conference adopted the limitation as a principle without even doubting the legitimacy of such a theory, especially with regard to claims by innocent third parties.

Some delegations argued that the limitation is necessary to make the shipowner's liability insurable since it introduces an element of predictability.[171] However, one may still doubt the existence of such link between the limitation amount and the insurance amount. The capacity of the insurance market may indeed be restricted, but if this necessarily implies that the liability should be limited as well remains a critical question.

The limitation was not decided alone, but came within the so-called compromise package, which imposed strict liability to a certain amount. Recalling the debate on liability system, the strict liability was considered too harsh on the shipping industry, thus no agreement could be reached until the cargo interest took part in the liability system in the form of a compensation fund. It therefore seems the limitation came to mitigate the harsh effect of strict liability on the shipowner. In this context, the limitation of liability seems to be a mechanism of cost sharing between all those involved in and benefiting from the maritime adventure, rather than imposing all the losses on the shipowner. The limitation of liability is justified by some as a means to achieve "an equitable distribution of the risks inevitably attached to a maritime adventure" and under an effective limitation system, the insurance costs broadly reflect earnings capacity.[172]

The limitation amount was based on the tonnage of the vessel. The damage is related to the size

[167] LEG/CONF/4, OR 1969, p438, LEG/CONF/C.2/SR.17, OR 1969, p727.
[168] LEG/CONF/4, OR 1969, p440.
[169] LEG/CONF/C.2/SR.17, OR 1969, 738.
[170] Killingbeck, S., Limitation of Liability for Maritime Claims and Its Place in the Past Present and Future – How Can it Survive? Southern Cross University Law Review (SCULR), Vol. 3, November 1999. See http://www.scu.edu.au/schools/law/law_review/V3_full_text.htm
[171] The same view was held by some scholars as well. See for instance, Seward, R. C., The Insurance Viewpoint, in: The Limitation of Shipowners' Liability: The New Law, Sweet & Maxwell Institute of Maritime Law, 1986, p163.
[172] Seward, R. C., 1986, p185.

of the vessel to certain extent. According to Sweeney, "the deadweight tonnage reflects the earning capacity of the vessel and its value to the owner".[173] He also projected that as long as the limitation was determined by a predictable factor, it should be insurable.[174]

It was decided that the limitation amount should be calculated as 2000 francs per tonnage. This tonnage related system has been used for a long time. However, one may wonder if the size of the ship is the only factor that influences the damage of the oil pollution it can cause. Indeed, there is a large chance the bigger the tanker, the more damage it can cause. But a number of other factors should be considered as well. This may include, in addition to the amount of oil spilt, the nature of oil, the sea conditions, the tide and currents, the nature of the coastline, whether the locus is particularly environmentally sensitive and whether certain precious flora and fauna were involved. Some financial elements may influence the scale of damage as well, e.g. the amount of economic loss (pure and otherwise) sustained should also be taken into account.[175] However, these factors were missing in the calculation of the limitation amount, but it was simply decided to base on the tonnage.

4. Principle of Channelling of liability

4.1 Channelling in the nuclear industry

The concept of channelling first appeared in the nuclear conventions.[176] It means that only the statutory channelled party shall be exclusively liable for the damage, and the other parties are excluded from the liability. It is a deviation from the general principle of tort law that the tortfeasor who has caused damage should be held liable. This idea came as a political compromise in the nuclear conventions.[177] During the negotiation of the nuclear conventions, the US as a big nuclear producer who of course did not want to be burdened by the potential responsibility urged the European partners to make the operator of the nuclear installation exclusively liable. Without total exemption from liability, they would not supply nuclear technology for the nuclear installations. As a result, in both the Paris Convention on Third Party Liability in the Field of Nuclear Energy 1960 and the Vienna Convention on Civil Liability for Nuclear Damage, the liability for nuclear damage is channelled to (and solely born by) the operator of the nuclear installation. Thus the nuclear industry in the US is protected from potential liability through the mechanism of channelling.[178]

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[173] Sweeney, J., 1968, p196.
[174] Sweeney, J., 1968, p197.
[175] Little, G. and Hamilton, J., Compensation for Catastrophic Oil Spills: A Transatlantic Comparison, Lloyd's Maritime and Commercial Law Quarterly, 1997, p392.
[176] Paris Convention on Third Party Liability in the Field of Nuclear Energy, 1960 and Vienna Convention on Civil Liability for Nuclear Damage.
[177] Van den Borre, T., Efficiënte Preventie en Compensatie van Catastroferisico's, Het Voorbeeld van Schade door Kernongevallen, 2001, p693-701; see also Vanden Borre, T., Transplantatie van 'Kanalisatie van Aansprakelijkheid' van het Kernenergierecht naar het Milieu (Aansprakelijkheids)Recht: een Goede of een Gebrekkige Zaak?, in: Faure, M. and Deketelaere, K. (eds.), Ius Commune en Milieurecht, Actualia in het Milieurecht in België en Nederland, 1997, p329-382.
[178] Faure, M., Causal Uncertainty, Joint and several Liability and Insurance, in: Koziol, H. and Spier, J. (eds.) Tort and Insurance Law, Vol.10, p93; see also Tanikawa, H., 2003, p53.

4.2 Channelling in case of oil pollution

In the draft Convention, Article II (paragraph 3 in Alternative A, paragraph 4 in Alternative B) specifically provided that no claims shall be made against the servants or agents of the owner. Thus only the registered shipowner is responsible for the pollution damage, while the servant who might actually contribute to the damage are explicitly excluded from assuming any responsibility.

There was not so much debate at the 1969 Conference on the issue of channelling itself, and it was not even raised as a question of principle for discussion. The debate in this respect was not on the channelling as a matter of principle, but mainly on the application of the channelling, being which party (the operator as in the nuclear conventions or the shipowner) should be the one solely bear the responsibility in the compensation regime.

4.2.1 CMI draft

As there was so little discussion on the channelling at 1969 conference, it might be useful to trace the preparatory work carried out by the CMI.

At the beginning of the Tokyo conference in the end March to April 1969, the CMI draft contained in Article 3 a provision on channelling. It stated

"No claim for pollution damage may be made against the owner otherwise than in accordance with this Convention. No claim for such damage, under this Convention or otherwise, may be made against the ship itself, the servants or agents of the owner or against a demise, time or voyage charterer of the ship or the servant or agents of any of them.

Nothing in this Article shall prejudice any right of recourse of the owner."[179]

The first sentence is designed to protect the shipowner against claims under the general principles of tort law.[180] Thus the shipowner only takes liability under the CLC. The second sentence is actually about channelling, and it listed the parties that were excluded from the liability under the Convention. Lord Devlin at the Tokyo Conference pointed out that there was a political reason behind such an article, but he did not want to make further comments on such policy issues.[181] According to him, the second sentence is designed to ensure that the victim will not bring a lawsuit against the charterer under general principles of law.

According to the Norwegian delegate Mr. Rein, there should be three conditions for the channelling to function. First, there should be one subject or entity that is always liable regardless of fault. Second, the liable subject must be definitely able to meet the liability imposed on him. Third, there should be no recourse to other subjects.[182] According to him, all these conditions were satisfied in the nuclear industry, but obviously not in the case of oil pollution. However, this was almost the only dissenting voice.

[179] CMI Documentation 1969 III Tokyo (1), p44.
[180] CMI Documentation 1970 I Tokyo (4), p12.
[181] CMI Documentation 1970 I Tokyo (4), p10.
[182] CMI Documentation 1970 I, Tokyo (4), p 6 – 8.

Already within the CMI, the prevailing opinion was to channel the liability, the only debate within at the Tokyo conference was around which parties should be excluded from the liable parties. It was once suggested that all the parties having contractual relationship with the shipowner should be excluded. However, this was not adopted.

4.2.2 Debate at the 1969 Conference

As mentioned before, the main discussion related to the channelling at 1969 conference was around whether the shipowner or the operator should assume liability.

Article I.3 (a) of the draft Convention provided an option to impose liability on the "operator". This was designed as an alternative to Article I.3 which would impose liability on the shipowner. Article I.3 (a) provided that "operator" means "the person using in his own name the ship manned, equipped and supplied by him". Countries like USSR, Bulgaria, Italy, Germany, Liberia, UK, Poland and Sweden supported liability of the operator,[183] although the arguments given as justification for such a system are quite diverging. Other countries opposed the idea of operator liability. These include, *inter alia*, the Netherlands, France, US, Australia. The UK later changed his view from supporting the operator to supporting the shipowner's liability.[184]

The explanation given by the USSR and Bulgarian delegations to support liability on the operator was due to their special social system. The ships were state owned and operated by shipping companies.[185] As for Italy, this was because the operator liability has been existing in the Italian system for 25 years and it was found quite satisfactory.

The Federal Republic of Germany also considered it reasonable for the operator of the tanker to assume liability. The operator is the person who uses the ship for his own account and who ensures that the ship is properly equipped and managed; he has the most control over the ship, and he might be the only one who was in a position to preclude or reduce the risks arising out of the carriage of oil by his management of the ship.[186] The argument was advanced by the insurance which according to the German delegation if cover the operator, will overcome the difficulty arised.[187] Moreover, according to the German delegate, it was relatively easy to identify the operator. In case when the operator is not easily identifiable, the registered owner should be held liable unless he could prove who the operator was.[188]

The UK argued for the liability of the operator in order to avoid the injustice of asking the shipowner, who has relinquished control over the operation of the vessel, to provide insurance.[189] They mentioned the example of the bareboat charter. In that case, the shipowner has nothing to do with the technical or commercial operation of the vessel, he simply retains his title. The

[183] LEG/CONF/C.2/SR.5, OR 1969, p642, Liberia,; LEG/CONF/C.2/SR.12, OR 1969, p690, Poland; LEG/CONF/4, OR 1969, p443; LEG/CONF/4, OR 1969, p503, Australia.
[184] LEG/CONF/C.2/SR.12, OR 1969, p691.
[185] LEG/CONF/4/Add.1, OR 1969, p510; LEG/CONF/C.2/SR.12, p693.
[186] LEG/COMF/C.2/SR.3, OR 1969, p627.
[187] LEG/CONF/4/Add.1, OR 1969, p505; LEG/CONF/C.2/SR.12, OR 1969, p690.
[188] LEG/COMF/C.2/SR.3, OR 1969, p626.
[189] LEG/CONF/4, OR 1969, p456-457.

complete control of the ship is in the hands of the operator, who is often an oil company, so it was argued by the UK delegation.[190]

On the other hand, there were arguments against the liability of the "operator":

First, according to the French delegation, the concept of operator did not originate in maritime law, but it was rather borrowed from the nuclear industry and hence argued it was outside the scope of maritime law.[191] In the Nuclear Conventions, the "operator" of the nuclear power plant was held strictly liable. It is true that in the nuclear industry the states exercise great control over the nuclear operation. It was also easier to identify the operator. However, this was not the case in the oil industry yet. Moreover, under the then international conventions concerning the contract of carriage of goods by sea (the Hague Rules or the Hague-Visby Rules) or the limitation of liability of sea carriers (the 1924 Convention and the 1957 Convention),[192]. There was no such definition of "operator" in the maritime conventions. So the French argued against a liability of the operator.

Second, based on the definition of the draft convention, under different charterparty terms, the operator may differ. Under a demise charterparty, it is the charterer who equips the ship with his crewmembers, and hence he is the operator; under the time charterparty, the "operator" could be the shipowner. The French delegate realized such difficulty and proposed (if liability had to be imposed on the operator) that it should be specified in the Convention that the operator includes the bareboat charterer and not the charterer under time or voyage charterparty.[193] However, this did not alleviate the problem caused by the introduction of the notion of "operator".

The Netherlands delegate illustrated the problem with an example where shipowner A has agreed to charter his ship by demise to company B, and B in turn charters the ship under a long term time charter to the time charterer C. Thus it will be extremely difficult to identify the "operator", since B did not use the ship in his own name, nor did he supply the vessel (the vessel is supplied by time charterer C), and time charterer C did not man or equip the vessel (the vessel is equipped by B).[194] This might give rise to the evasion of liability of the charterer.

Third, the US argued that the liability of the operator would be incompatible with the envisaged scheme of compulsory insurance. [195] Problems would arise as to the issuance of insurance or other certificate for financial guarantee. Since the administering authority should issue a certificate for the party liable to take out insurance and his name should be shown in the certificate. According to the change of terms in a charter, the operator would change accordingly. This would mean that the authority would have to continually issue and revoke insurance certificates.

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[190] Wu, C., 1996, p53.
[191] LEG/CONF/4, OR 1969, p444. The 1962 Convention on the Liability of Operators of Nuclear ships, signed at Brussels on 25 May 1962.
[192] The titles of these two conventions specified the owner to be the liable party and not the operator, as these conventions are about the liability of the shipowner to be limited, not that of the operator.
[193] LEG/CONF/4, OR 1969, p443 – 445.
[194] LEG/CONF/4, OR 1969, p453 – 454.
[195] LEG/CONF/C.2/SR.12, OR 1969, p690.

Lots of delegations argued that contrary to the concept of "operator", which could change from one moment to the next and was often unknown, the registered owner would always be known in the ship's register, and hence would be easily ascertainable by the victim.[196] Hence, imposing liability on the shipowner could avoid the complication of identifying the liable party and the multiplicity of liable parties. This coincides with the goal of the convention to provide maximum security for the victim.

The debate on whether liability should be imposed on the shipowner or on the operator did not last too long as the vote took place at the end of the morning session on 20 November 1969. 24 delegations were in favor of liability of the shipowner and 13 were for the liability of the operator.[197] As a result, the liability of the shipowner was basically finalized.

In addition to the debate on the liability of the shipowner or the operator, there was some discussion on parties to be excluded from assuming liability. The US delegation considered that the operator should also be excluded from the liable party.[198] The Netherlands delegation suggested that independent contractor should be precluded as well.[199] However, without further justification (or rather, no other traceable discussion from the Official Record) the finally adopted CLC only excluded the liability of the "the servants or agents of the owner". The charterers which were specifically excluded under the CMI draft were not mentioned in the CLC. The CLC nevertheless left open the possibility of recourse against the third parties beyond the Convention.

4.3 Evaluation

Instead of holding the tortfeasor liable, the CLC directed the liability exclusively at the registered shipowner. It seems the existence of the channelling mechanism in the nuclear conventions has so much influence on the draftsmen of the CLC that the principle of channelling was accepted without providing legal justification. It was suggested to borrow the idea of channelling from the nuclear industry.

Under the CMI draft, the charterers are explicitly protected from assuming liability. This was said to be the political motive for such a design, being protection of the charterers who are often the oil companies. However, in the finalized CLC, the stress of the charterers was neglected, and it only provided that no claim "may be made against the servants or agents of the owner".

According to the channelling provision in the CLC 1969, the shipowner alone has to take responsibility and he cannot be sued at common law if the CLC applies. The claimant is not allowed to "by-pass" the CLC by suing the servants or agents of the shipowner.[200] In the CLC, the requirement of channelling of liability was not totally like the one in the nuclear conventions,

[196] Yugoslavia, Cameroon, Australia, Venezuela, Norway, p690 – 693.
[197] LEG/CONF/C.2/SR.12, OR 1969, p694.
[198] LEG/CONF/4, OR 1969, p464.
[199] LEG/CONF/4, OR 1969, p462.
[200] Article III 4.3 of the CLC 1969.

but closely related to the requirement of compulsory insurance. If the strict liability were applicable to all related parties without channelling, it might be impossible for any of them to obtain effective insurance.[201]

Problems exist as to the provision in this proposed article. The aim of the channelling provision is to make one party solely liable and thus exclude all the other. It might have the advantage of simplification of the situation, but it seems not possible to reach such a goal under this provision. The proposed article gave the shipowner the right of recourse, so he is entitled to bring a lawsuit under the general principles of law against the parties who were intended to be excluded under the convention, the charterer for instance. This seems to be contradictory to the original idea of channelling to hold one party solely liable. On the other hand, if the charterers are faced with the potential liability, they will take insurance. Thus the double insurance will occur, both the shipowner and the charterer will take out insurance against oil pollution liability.[202] This is of course what the drafts men of the CLC tried to avoid through the channelling system. However, it seems not possible to reach a goal of simplification because the CLC gave the shipowner the right of recourse action. Thus, the shipowner is entitled to bring a lawsuit against the parties who were intended to be excluded under the convention, the charterer for instance. This seems to be contradictory to the original idea of channelling to hold one party solely liable and to exclude particularly the liability of the oil industry.

According to some scholars, the channelling was needed in the marine oil pollution compensation regime for the following reasons: First, the CLC imposed liability on the shipowner (and his insurer), but they are entitled to limit their liability to certain amount. However, such right to limit their liability would be undermined if it were open to claimants to pursue alternative remedies outside CLC and independently of the limitation provisions. Second, when the CLC was drawn up, the liability limits were set at a level which the insurance market could cover. This would be reduced if parties other than the shipowner were required to take insurance coverage for the same damage. Third, the CLC contains a provision on recourse action which means the obligation of other parties to indemnify the shipowner and hence their liability for pollution damage is not excluded under the Convention.[203] These arguments in favor of channelling were heavily criticized in economic literature. This will be further discussed in Chapter 9 using the tool of economic analysis.

5. Principle of compulsory insurance

5.1 General debate on the necessity of compulsory insurance

During the discussion on the liability principle, some delegations already expressed their concern about the insurance market capacity. Delegations like the US and France were quite optimistic about the insurance market capacity. They referred to the enquiry made at the London insurance

[201] Tanikawa, H., A Revolution in Maritime Law: A History of the Original Legal Framework on Oil Spill Liability and Compensation, The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, IOPC Fund, p53.
[202] CMI Documentation 1970 I Tokyo (4), p10.
[203] De la Rue, C. and Anderson, C.,1998, p96-97.

market, and they believed the (insurance) market possibilities were much more promising than the preliminary enquiries suggested. Moreover, the fact that an insurance market developed for nuclear hazards liability accordingly to meet the demands created by the new legal rules made them believe that the same could happen to the oil pollution liability, once the scheme had properly started, a new market would develop as well to provide much larger funds.[204] However, the UK delegation had the opposite view and according to Lord Devlin it would impose a too heavy burden on the London market, which does not have sufficient capacity to meet the requirements of all risks yet.[205]

The Committee started to discuss the issue of compulsory insurance on the morning session of 21 November 1969. At this stage, the liability on the shipowner was decided, but if it was strict or fault liability was not finalized yet, and the report of the working group on the international compensation fund was in process. The Chairman considered that the compulsory insurance would have a role to play no matter what type of liability were to be adopted, so the discussion on compulsory insurance could be proceeded.[206]

The main aspects concerning the insurance issue discussed at the Conference are about the necessity of such a compulsory insurance system, what kind of ships are required to take insurance, how to guarantee an application of the insurance provision and the problem of direct action.[207] Norway also pointed out that liability insurance already existed for a long time and it could be extended to include oil pollution liability.[208]

Paragraph 1 of the draft Article III stated that "The owner of a ship registered in a Contracting State carrying more than [2000] tons of oil in bulk shall be required to maintain insurance or other financial security in the sums fixed by applying the limits of liability prescribed in Article V, paragraph 1 to cover his liability for pollution damage as specified under the present Convention."

During the debate on the nature of the liability system discussed before, one could notice that lots of delegates tried to justify their proposed system with the argument of insurance. It seems to be implied in their arguments that insurance in any case would be necessary in order to provide sufficient compensation for the victims. Norway pointed out that the insurance cover would differ according to the different nature of the liability, either it were "fixed liability" or fault liability. Moreover, according to his delegation, the highest insurance can be obtained when the liability was based on fault.[209]

The system of compulsory insurance as a principle was welcomed by most of the delegations (including the US, Brazil, Sweden, France, Ireland, Greece, Japan, Australia, Romania), but they also expressed their concern about some difficulties that might arise from some particular aspects (France). There were some other delegations who were against the system of compulsory

[204] LEG/CONF/C.2/SR.8, OR 1969, p658-659.
[205] LEG/CONF/C.2/SR.8, OR 1969, p659.
[206] LEG/CONF/C.2/SR.14, OR 1969, p702.
[207] LEG/CONF/C.2/SR.14, OR 1969, p701.
[208] LEG/CONF/C.2/SR.8, OR 1969, p653.
[209] LEG/CONF/C.2/SR.4, OR 1969, p633.

insurance (German).

Among the advocators of compulsory insurance, the main arguments in favor of compulsory insurance were the following:

First, compulsory insurance would be an essential measure to supplement the liability system. Without the insurance cover, the liability system would be unworkable, given the insolvency risks.[210] According to the French delegate, there was an interrelation between compulsory insurance and strict liability. Hence, compulsory insurance should be an integral part of the whole system.[211] Moreover, compulsory insurance was considered the only way to secure the goal of adequate compensation considering the high cost of correcting damage resulting from oil pollution.[212] Especially in case of a one-vessel company, such a system would be necessary to solve the difficulty posed by an insolvent debtor.[213] Especially in case of a flag of convenience, compulsory insurance would be essential, particularly as a guarantee of solvency.[214]

Second, confronted with the argument of (limited) insurance capacity, the US replied that the convention was not designed for the small group of insurers, but to protect the victims. In this view, the insurers should be expected to adapt themselves to such needs.[215] The insurers could always spread the risk through reinsurance, so it was held.[216]

Third, as the UK argued, the compulsory insurance added to the certainty of claims to be met. In case of a voluntary scheme, the shipowners may not be insured or could have different exemptions and exclusions, whereas in a compulsory system, such problem would be solved.[217]

Although it was agreed that the system of compulsory insurance would further the aim of the convention and should in principle be welcomed,[218] some other delegations pointed at the difficulty inherent in the implementation and application of such a compulsory insurance system:

First, there was doubt on whether such a system was necessary. As was noticed before, the basis for liability was not finally decided yet when the discussion on the compulsory insurance started. Therefore some delegations argued that the necessity for insurance was dependent on the type of liability rules adopted. In the Dutch delegation's view, if a fault liability rule were adopted, there would be no difficulty to obtain insurance, the tanker owners would take insurance without being compelled to do so.[219]

Sweden and Greece believed the fund would provide a simpler solution, hence the insurance

[210] This is of course the view expressed by those who were in favor of strict liability, among which, France (LEG/CONF/4, OR 1969, p466), US and Brazil (LEG/CONF/C.2/SR.14, OR 1969, p703).
[211] France, LEG/CONF/C.2/SR.14, OR 1969, p703.
[212] Barbados, LEG/CONF/4, OR 1969, p504.
[213] US, LEG/CONF/C.2/SR.14, OR 1969, p703.
[214] France, LEG/CONF/4, OR 1969, p466; LEG/CONF/C.2/SR.14, OR 1969, p703.
[215] LEG/CONF/C.2/SR.14, OR 1969, p703.
[216] Romania, LEG/CONF/C.2/SR.14, OR 1969, p703.
[217] LEG/CONF/4, OR 1969, p476.
[218] LEG/CONF/C.2/SR.14, OR 1969, p702.
[219] LEG/CONF/C.2/SR.14, OR 1969, p702.

would be of minor importance. They hence suggested to wait for the result of the working group on the fund.[220] The US on the other hand stated that fund would not solve all problems, and compulsory insurance would be necessary even with the existence of a fund, as the first claim would be against the ship.[221] The US also considered that the compulsory insurance should cover substantial percentage of the total liability (eg. 50% or 60% of his total potential liability.)[222]

Second, if the flag state were to administer the financial responsibility system, a difficulty would arise in deciding when to issue the certificate and how to police ships since they could load cargo at foreign ports.[223] Draft Article III Paragraph 6 provided that "the State of registry shall, subject to the provisions of this Article, determine the conditions of issue and validity of the certificate." Thus, as stated by the Netherlands[224] and Liberia, compulsory insurance would impose a burden on the government, as it would be difficult for the government to evaluate the insurance policies.

Third, it was argued that the insurance market was not prepared to prescribe such insurance yet.[225] The insurance market lacked the capacity to cover all kinds of risks and it would be difficult to prescribe the conditions and premiums. The costs of compulsory insurance would be very high in order to cover large risks on a world scale.

Fourth, as realized by the French and German delegations, the introduction of compulsory insurance might put tanker fleets of contracting states at a competitive disadvantage vis-à-vis those of non-contracting states.[226] The French delegation proposed sanctions on states whose ships did not comply with the requirements.[227] The German delegation on the other hand proposed protection against competition by uninsured ships, especially those of non-Contracting States. That protection could be provided only by an absolute refusal to allow such ships to enter the ports of Contracting States, but few States would be willing to do so.[228]

As pointed out by the Danish and the Dutch delegations, the administrative and technical difficulties concerning the arrangement of compulsory insurance will pose a serious obstacle to the ratification of the conventions.[229] The Netherlands even proposed to include the provisions concerning the insurance issues in an optional protocol to the convention similar to the approach of the 1952 Rome Convention.[230] The Dutch delegate suggested that the convention should only contain provisions on the liability system and the insurance arrangement should be stipulated in a separate chapter. It would then be left to the Contracting States to decide whether to adopt the insurance scheme or not together with the liability rules. According to his delegation, difficulties would arise especially in case of a change of ownership of the vessel. Then the question was how

[220] LEG/CONF/C.2/SR.14, OR 1969, p703.
[221] LEG/CONF/C.2/SR.4, OR 1969, p704.
[222] LEG/CONF/4, OR 1969, p478.
[223] LEG/CONF/4, OR 1969, p458.
[224] LEG/CONF/4 and LEG/CONF/C.2/SR.14, OR 1969, p702, 705.
[225] The Netherlands, LEG/CONF/C.2/SR.14, OR 1969, p702.
[226] LEG/CONF/4/Add.1.
[227] LEG/CONF/C.2/SR.14, OR 1969, p703
[228] LEG/CONF/C.2/SR.14, OR 1969, p702. UAR agreed with the German idea on sanctions, p704.
[229] LEG/CONF/4, OR 1969, p437, 440.
[230] 1952 Rome Convention on Liability of Operators of Aircraft for Damage caused to Third Parties on the Surface.

to secure the insurance to be covered and not to cause extra burden to the guarantors who provide such financial guarantee.[231]

The debate on the compulsory insurance did not last long, and the compulsory insurance as a principle was soon established by voting at the same morning session when such issue was put into discussion.[232]

5.2 The Direct action against the insurer

When the compulsory insurance as a principle was affirmed, the issue of the direct action was put on debate. The issue was mainly about if the victim could bring a claim directly against the insurers of the shipowner or other financial guarantors. Although in the original draft of the Legal Committee, the provision was against the direct action, most of the delegations were to the contrary in favor of it. The major objections came from the UK and the US.[233]

The UK and US argued that the direct actions should be restricted to cases of insolvency or bankruptcy of the shipowner, which coincided with their domestic laws. (E.g. under English law, a direct action against the insurer is only allowed if the insured is bankrupt or goes into liquidation. In other cases, the insurer will reimburse the insured after the latter has paid out on a claim.[234]) They argued that the direct action in all cases would put the insurer "at a serious disadvantage".[235] He feared that due to the existence of a direct action, the shipowner would have no interest in assisting the insurer in defending the claim and the shipowner would have no incentive to take necessary precautions. This in turn would make it harder for the insurer to protect himself against ill-founded actions. As a result, the insurance would become more onerous, the insurance costs would be increased and the market capacity would shrink.[236] The US was also concerned about the right of subrogation given to the insurer under direct recourse, whereby the danger of collusion could arise between the shipowner and the insurer to the disadvantage of the victims.[237] Hence, the UK and the US considered that the advantages of direction action did not outweigh the drawbacks, and objected the direct recourse in all cases but favored limiting the recourse to the case where the insurer was insolvent.

However, the right of direction action in case of insolvency would not be easy in application as pointed out by Italy, who agreed with the UK's view though, the adjudications of bankruptcy in one state might not be recognized in another.[238]

Among the supporters of direction action, the French delegate considered that such a system was

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[231] LEG/CONF/C4, OR 1969, p474 – 475.
[232] Result of the vote: 30 votes were in favor of compulsory insurance, 3 were against, with 3 abstentions. See LEG/CONF/C.2/SR.14, OR 1969, p705.
[233] There were other countries that were against the mechanism of direct action, Liberia, Australia and Romania; while the UK, the US and Italy's opinions were that the direct action should be limited to the cases where the shipowners were insolvent or bankrupt. See LEG/CONF/C.2/SR.14, OR 1969, p706.
[234] This is "pay to be paid" provision of the P& I Clubs.
[235] UK, LEG/CONF/4, OR 1969, p473, 477.
[236] LEG/CONF/C.2/SR.14, OR 1969, p705-706.
[237] P478.
[238] LEG/CONF/C.2/SR.14, OR 1969, p706.

in the advantage of victims.[239] Under French law, the insurance rule of "pay to be paid" appeared to be unknown. In the French delegation's view, "the victim's right should not be dependent on the relations between the insurer and the insured. Victims should not suffer the consequences of the negligence of the owner-insured who does not fulfill all his obligations to his insurer."[240] According to the French delegation, without the right of direct action, the compulsory insurance would lose its prime benefit.[241] Moreover, it stressed the importance of having the direct action in all cases. Ireland pointed out that the direct action was essential especially in case of a single-ship company. Moreover, he argued that the insured would still have an interest in the claim since he had an interest in the insurance costs, the premium was directly related to the claims made.[242] The German delegate said the direct action already existed in road traffic, and it could ensure that money would be available from insurance to compensate the victim.[243]

The debate concerning the direct action did not take long either, and the vote was taken immediately. The direct action was established by 33 votes to none with 8 abstentions.[244] The final version of the CLC recognized the mechanism of direct action in all cases.[245]

5.3 Minimum tonnage requirement for tankers to take insurance cover

Acknowledging that the compulsory insurance would be necessary, the great difficulty arising was what kind of vessels, particularly what size of ship should be required to take insurance.[246] In the draft Article, a figure of 2000 tons was put in brackets as a guidance for the minimum tonnage required to take financial guarantee. As provided in the draft article, not all vessels are required to take out insurance, only those tankers carrying more than 2000 tonnes of oil in bulk as cargo.

This was criticized as smaller vessels could also cause serious pollution problems. Sweden was not convinced that the insurance requirement should only be confined to ships carrying large quantity of oil,[247] Moreover, added by the Portugal, smaller ships often operated nearer to the coast, and this posed a serious pollution risk and he proposed it should be 500 tons.[248] This was supported by Sweden, Spain and France[249]. However, as pointed out by France, small ships operated by the coast should be subject to national law, and would hence be beyond the scope of application of the international convention.

The UK was in favor of the 2000 tons minimum requirement. According to his delegate, such a

[239] LEG/CONF/4, OR 1969, p467.
[240] LEG/CONF/4, OR 1969, p467.
[241] LEG/CONF/4, OR 1969, p467 – 468.
[242] LEG/CONF/C.2/SR.14, OR 1969, p706.
[243] LEG/CONF/C.2/SR.14, OR 1969, p706. There were other delegations in favor of direct action, like Sweden and Greece.
[244] LEG/CONF/C.2/SR.14, OR 1969, p707.
[245] Wu, C., 1996, p71.
[246] LEG/CONF/4, OR 1969, Japan, p438.
[247] LEG/CONF/C.2/SR.14, OR 1969, p703
[248] LEG/CONF/C.2/SR.14, OR 1969, p708.
[249] France also considered the requirement of insurance should be extended to a larger number of ships and thus he proposed a lower minimum requirement of 500 tons. See OR 1969, p466.

figure would exclude small coastal craft and ships with deep tanks but did not normally carry large quantity of oil in bulk as cargo could thus simplify the administration of the insurance scheme.[250] It was supported by Liberia, the Netherlands and Ireland.

The US raised the question what would happen in the case the tanker carried 2000 tons of bunker while carrying only a small amount of oil as cargo.[251] Spain considered such a minimum requirement should be related to the carrying capacity of the vessel and not to the tonnage of oil carried.[252] The UK agreed with the Chairman that the figure of 2000 tons referred to metric tons of cargo, not the gross tonnage of ship.[253]

The voting showed that 26 states were in favor of the figure of 2000 tons to be maintained, 7 were against, and 9 states abstained from the vote.[254] Hence, the minimum requirement for tankers to take insurance was settled to be 2000 tons, and smaller ships were alleviated the burden of the compulsory insurance.[255] It should be noted that the figure of 2000 tons only means the compulsory insurance applied to tankers carrying more than 2000 tons of oil, but the civil liability still applies to ships of less than 2000 tons of oil as well.

5.4 Sanctions

Following the discussion on the basic principle questions, the Committee started to discuss the draft article by article on 21 November 1969. Another aspect concerning the insurance was raised, being the sanctions to be imposed on the shipowner who could not produce the required certificate of financial guarantee.

The draft Article III paragraph 10 provided that a "contracting State shall not permit a ship under its flag to which this Article applies to trade unless a certificate has been issued". Paragraph 11 stated that a contracting state should ensure that under its national legislation any ship entering or leaving its port should take the required insurance or other financial guarantee.

The French delegate proposed to go further and give the contracting state the right to refuse access to the port where ships could not produce the required certificate. His delegate also realized that such a harsh measure might not be accepted by all states and may cause an obstacle to the ratification of the convention.[256] The German delegate even had the view that the sanctions should be as severe as possible.[257]

On the other hand, countries including Ireland, Norway, Liberia and USSR were against a sanction in the international convention. Ireland argued that the choice of sanctions should be left to the discretion of the contracting states, so that it would be flexible enough to secure the widest

[250] LEG/CONF/C.2/SR.14, OR 1969, p708.
[251] LEG/CONF/4, OR 1969, p477.
[252] LEG/CONF/4, OR 1969, p476.
[253] LEG/CONF/C.2/SR.14, OR 1969, p708.
[254] LEG/CONF/C.2/SR.14, OR 1969, p709.
[255] LEG/CONF/4, OR 1969, p469; LEG/CONF/C.2/SR.14, OR 1969, p708.
[256] LEG/CONF/4, OR 1969, p468.
[257] LEG/CONF/C.2/SR.15, OR 1969, p716.

possible ratification of the Convention.[258]

In the end, the Irish proposal was rejected.[259] The provisions in Article III paragraphs 10 and 11 were confirmed in the finalized convention. According to this provision, ships of non-Contracting States must also have the same level of cover in order to enter the port of a Contracting State, whereby the situation only ships of Contracting States alone are obliged to take out insurance is avoided.[260] However, the severe sanction to "refuse entry to its ports" if no insurance exists was finally not adopted, but the term "ensure" with regard to the existence of insurance was adopted by the Conference.

5.5 Evaluation

Prior to 1969, there was no legal obligation for a shipowner to take out insurance against pollution liability. Even in a successful court action, the claimant would not always be paid back for the damage awarded by the court as the shipowner was very likely to be insolvent. Thus, an unenforceable judgment may be useless to a successful plaintiff, without any form of financial guarantee.[261] Having seen the drawbacks of the pre-1969 system, the delegations reached agreement easily on the compulsory insurance despite some objections. In this respect, the compulsory insurance may have the function of providing financial guarantee for the implementation of compensation system.

The responsibility of the contracting state was embodied in several aspects. First, as the state of the ship's registry, its appropriate authority shall issue the certificate of insurance (or other financial security) required by the CLC, and it "shall not permit a ship under its flag … to trade" without the required certificate.[262] Second, as a coastal state, it shall "ensure" that "any ship, wherever registered,

One of the major concerns was to ensure wide acceptance of the convention. Thus, the responsibility imposed on the contracting state was designed in such a way that it would leave certain flexibility for the state. The wording seems rather vague to certain extent: the state shall "ensure" the insurance certificate in place and the severe sanction of refusing entry was not adopted; the state shall not permit the ship to trade which is also a vague expression. Moreover, despite the vague expression, Article VII.11 in fact required all vessels, if they want to trade with contracting state, to obtain the required insurance certificate. This solves to certain extent the problem of unfair competition whereby ships of non-contracting state do not take such insurance.

There is a minimum tonnage requirement, which means tankers smaller than certain tons did not have to take out insurance. If one believes in the damage caused by a tanker is proportionate with its tonnage, it would mean that smaller tankers potentially causing smaller damage could avoid

[258] LEG/CONF/C.2/SR.15, OR 1969, p715.
[259] 21 votes were against the Irish proposal, 11 were in favor, with 4 abstentions. See LEG/CONF/C.2/SR.15, OR 1969, p716.
[260] Wu,C., 1996, p69. UK, LEG/CONF/C.2/SR.15, OR 1969, p716.
[261] Wu, C., 1996, p30; Gauci, G., Oil Pollution at Sea, Civil Liability and Compensation for Damage, John Wiley & Sons, 1997, p199.
[262] Art. VII.10 of the CLC 1969.

the obligation of insurance. However, as pointed out during the discussion on the limitation of liability, the damage caused by a ship does not always correspond with the size of the ship. Hence, excluding small tankers from the requirement of compulsory insurance might not solve the insolvency of the owner in case of a spill from such a tanker.

6. Concluding remarks

a. Before the existence of the CLC 1969, there was no uniform legal rule to deal with the oil pollution compensation, as a result, it was up to varied national legislations to decide on compensation in respective cases. The difference in national laws did not correspond with the international element of marine oil transportation and the pollution caused thereof.

The urgency of the problem of oil pollution was revealed by the 1967 Torrey Canyon accident, hence, the states decided to establish an international system to tackle such an issue. However, the time for discussion for an international convention was limited and the question arose as to if there should be a hasty solution although imperfect or nothing at all. The 1969 conference finally adopted a strict but limited liability capped to certain amount accompanied with the requirement of compulsory insurance.

b. The Conference decided to abandon the traditional concept of fault liability and imposed strict liability instead. This was considered revolutionary at the time. Replacing fault liability by strict liability may not seem such a big deal today, but in 1969 the maritime world was fairly conservative and strict liability was a major innovation. It was believed to have helped in strengthening the position of victims of oil pollution.[263]

c. The examination of the introduction of the CLC showed that the decision on certain legal regime is the result of balance-striking among various interest groups, more particularly of the coastal states, shipping nations and cargo owning states. In addition to the balance among all the countries representing different interests, the interests of different industries were represented as well.[264] Thus the negotiation of the international convention seems more a political than a purely legal process.[265]

Moreover, realizing that the new convention would inevitable impose liability on the ship industry or shipping-related interests, and considering the acceptance by a large number of shipping states was necessary for the new convention to become effective,[266] the Convention

[263] Jacobsson, M., The International Convention on Liability and Compensation for Oil Pollution Damage and the Activities of the International Oil Pollution Compensation Fund, in: De la Rue, C., Liability for Damage to the Marine Environment, 1993, p40.

[264] This can be one country with one particular strong industry, or the interest of several industries represented by one state. Take for example the UK who considered itself a compromise among various interests: long coastline exposed to pollution risks, strong shipping industry, insurance industry and an oil import country. See OR 1969, p626. However, one may suspect from the arguments given by its delegation that its primary concern was to protect its insurance industry.

[265] See also: Gaskell, N., Decision Making and the Legal Committee of the International Maritime Organization, Legislative Approaches in Maritime Law, in: Proceedings from the European Colloquium on Maritime Law, Oslo, 7-8 December 2000, p41-91.

[266] This was the view expressed by lots of delegations at the conference, see for instance, Greece, OR 1969, p627.

was thus compromised particularly towards the interest of maritime countries. For instance, the strict liability imposed on the shipowner was considered a too heavy burden on the shipping industry, so the mechanism of limitation of liability whereby the liability of the shipowner is only up to certain amount was adopted to offset the harsh effect of strict liability. A second example of such a balance-striking is that the shipowners actually agreed to assume liability only under the presumption that the oil industry will contribute to the compensation regime as well.

d. Surprisingly, not all the principles adopted in the CLC were the result of careful consideration of the delegations, but merely a copy from the existing regime, even outside the maritime domain. For instance, the limitation of liability was hardly discussed as a principle, but accepted almost unanimously. One may wonder if this is the long tradition in maritime law to limit the liability of the shipowner and its representatives that leads to the unanimous decision on limiting the liability of the shipowner in the case of oil pollution, even without discussing the legitimacy of such a mechanism applying to innocent third party victims. Second example of copying behavior is the channelling of liability adopted in the oil pollution regime, which was again without much discussion as a principle, but simply copied from the nuclear liability conventions.

e. The aim of sufficient compensation of oil pollution victims was not reached in all cases, at least could not be reached by the CLC alone. The view of an international compensation fund levied on the oil interest as a supplementary source of compensation contributed to the final adoption of the CLC. The wide acceptance of the CLC was considered largely due to the Supplementary fund.[267]

VII. Fund Convention

1. Introduction

Realizing that the liability system as designed in the CLC 1969 could not secure full and adequate compensation in all cases, the 1969 Conference passed a Resolution on the Establishment of an International Compensation Fund for Oil Pollution Damage. The Resolution recognized that the CLC did not "afford full protection for victims in all cases", so that "some form of supplementary scheme in the nature of an international fund is necessary to ensure that adequate compensation will be available for victims of large-scale pollution incidents". It requested the IMCO to elaborate a draft of such a compensation scheme for submission to an international conference to be convened "not later than the year 1971".

To this end, a conference was held in Brussels from 29 November to 18 December 1971, which resulted in the adoption of the Fund Convention 1971. With the assistance of a number of non-governmental organizations associated with the IMO, notably the OCIMF and the CMI, the Legal Committee prepared a draft Fund Convention which was submitted for discussion at the 1971 Conference.

It was already recognized that the CLC 1969 was not sufficient, thus the Fund Convention was

[267] De la Rue, C., Review of the Civil Liability and Fund Conventions, CMI Yearbook 2003, CMI, p579.

designed to supplement the CLC and to fill in the gaps left by the CLC. However, it was not decided yet to what extent the gaps should be filled, either it was to fill in all the gaps or only certain gaps. Moreover, there was no precise decision on what exactly were the gaps in the CLC yet. This unresolved issue was reflected throughout the debates at the conference. Varied opinions existed concerning how to fill in the gaps. Major divergence was about whether the envisaged Fund system should provide full compensation in all cases, or in most or only some of the cases. Therefore, the degree of "supplementary" function of the Fund was debated from several aspects, mainly the scope of compensation of the Fund, the exoneration of the Fund and the amount of compensation. As for the scope of application of the Fund, more detailed issues concerned the geographical scope of the Fund, the damages to be covered by the Fund, the cases where the Fund intervenes and not intervenes.

Another major debate at the 1971 conference was the function of the Fund to provide relief to the shipowner. This was particularly important since it concerned the distribution of costs between the shipping and the oil industries. In addition, the operation and organization of the Fund was intensely discussed.

2. Scope of compensation

The scope of compensation of the CLC was considered inadequate as it did not "afford full protection for the victims in all cases."[268] This was considered one major gap in the CLC that should be filled.

2.1 Geographical scope of application

Legal Committee drafted in Article 3 of Fund Convention that the Fund should compensate damage in "the territory including territorial sea" and "preventive measures" taken to prevent or minimize damage. The wording of the geographical scope of application, being "the territory including territorial sea", is actually the same as in the CLC.

Most delegations supported such a geographical scope.[269] Their argument was that the Fund was designed to supplement the CLC, not to amend it. Hence, it would be difficult to contemplate fundamental departures from the ambit of the CLC.[270] They were especially against covering the damage caused on the high seas as it would complicate the system and lead to excessive burden on the Fund.[271] According to them, to give the Fund Convention a wider application than the CLC, especially to make damage caused on the high sea compensable would lead to the risk of a flood of claims of compensation for trifling sums, and this might render the administration of the Fund unnecessarily difficult.[272]

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[268] 1969 Resolution.
[269] This includes inter alia, delegations of Australia, Denmark, Federal Republic of Germany, Japan and Norway. LEG/CONF.2/3, OR 1971, p46-48.
[270] Australia, LEG/CONF.2/3, OR 1971, p46.
[271] For instance, Australia, Denmark and Japan, LEG/CONF.2/3, OR 1971, p46-47.
[272] UK, Norway, Romania, LEG/CONF.2/C.1/SR.19, OR 1971, p453.

FR Germany raised the issue that it should be made clear whether the Convention applied when the damage occurred on the territory even if the incident occurred on the high seas.[273]

On the other hand, the proactive group represented by the US was in favor of designing an instrument that covers damage as broad as possible in order to protect the resources, thus it proposed to expand the geographical scope of the Fund to the damage occurred on the high seas.[274] It proposed to cover serious damage caused to fisheries and stressed the importance to encourage those concerned to strengthen their safety measures.[275] The US even considered the limited scope of compensation of the CLC one of its inadequacies which should be remedied through the Fund Convention.[276] This opinion was supported by Singapore, France, Portugal, India and Canada. These states, although they might not be so proactive as the US, they still believed the draft of the Legal Committee was inadequate to protect the interests of the coastal states, especially the living resources beyond the territorial sea and of the continental shelf.[277] The US opinion was rebutted by particularly the UK, Japan, USSR, Liberia and Bulgaria.[278]

The Rapporteur however expressed his fear that under the US proposal, a non-contracting state would be entitled to claim compensation for damage caused on the high seas, and a contracting state might claim compensation when it took measures to protect territory of a non-contracting state against the effects of damage caused on the high seas.[279] The US proposal was nevertheless rejected.[280]

The situation at that stage was that there was no international law to define precisely the related zones like territorial sea, continental shelf since the 1958 the Law of the Sea Convention reached no agreement.[281] Thus they were defined by national legislation. The conference was not intended to revise or define those terms, but could only be based on the terms of existing public international law of the sea.[282] Some delegations proposed different ways to define the geographical scope by avoiding the use of the terms that were not unified in international law at the time. But all these proposals were rejected.[283] The original draft from the Legal Committee which used the same wording as the CLC was maintained.[284]

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[273] LEG/CONF.2/3, OR 1971, p47.
[274] The US was in favor of the wording in footnote 2, p46, adding after the contracting state "to damage caused on the high seas and suffered by a contracting state or by a person having his usual residence or his seat in a contracting state." See p48-49.
[275] P453.
[276] LEG/CONF.2/3, OR 1971, p48-49.
[277] India, LEG/CONF.2/C.1/WP.5/Corr.1, LEG/CONF.2/C.1/SR.18, OR 1971, p449-450.
[278] LEG/CONF.2/C.1/SR.19, OR 1971, p453-454.
[279] LEG/CONF.2/C.1/SR.19, OR 1971, p453-454.
[280] The US proposal was rejected through vote, 18: 14 with 5 abstentions, LEG/CONF.2/C.1/SR.19, OR 1971, p455.
[281] India, LEG/CONF.2/C.1/SR.18, OR 1971, p449-450.
[282] Chair, p450. However, Argentina held that each convention should define these concepts as far as it was itself concerned, while awaiting a more widely accepted definition, LEG/CONF.2/C.1/SR.19, OR 1971, p452.
[283] These include, for instance, amendments from Argentina in LEG/CONF.2/C.1/WP.56, which was rejected by 21:8 with 7 abstentions; India in LEG/CONF.2/C.1/WP.5/Corr.1, which was rejected by 16:12 with 10 abstentions; Canada LEG/CONF.2/C.1/WP.53 (100 miles from 1951 OILPOL), which was rejected by 24:8 with 5 abstentions; Australia in LEG/CONF.2/C.1/WP.32, which was rejected by 21:14 with 3; Portugal in LEG/CONF.2/C.1/WP.1, which was rejected by 21:12 with 7 abstentions. For discussions on these proposed amendments, see LEG/CONF.2/C.1/SR.19, OR 1971, p455-463.
[284] There was a motion to reopen the discussion, but was rejected . See LEG/CONF.2/C.1/SR.24, OR 1971, p508-509.

2.2 Preventive measures

Norway proposed the preventive measures covered by the Fund should be the same as in the CLC, being the expenses or sacrifices that were reasonably incurred by the owner.[285] This gained immediate support from most delegations including, *inter alia*, the UK, Spain, the Netherlands, the USSR, the US, France, Japan, Canada and Belgium.[286]

US went further to point that "preventive measures" should include steps taken to prevent pollution damage on the high seas from affecting territorial waters.[287] Canada also proposed that "preventive measures" taken on the high seas for the purpose of preventing damage would be recoverable under the Fund Convention, although it was not covered by the CLC (the shipowner's liability under the CLC did not include such preventive measures on the high seas).[288] The Rapporteur fully supported such a proposal and stated that the 1969 text would be supererogatory if it did not cover preventive measures taken on the high seas.[289] Some states raised the concern such a proposal might result in difficulty over interpretation.[290] This principle was nevertheless approved.[291]

The idea that preventive measures should be compensated was later confirmed during the discussion on Article 4 concerning the cases where the Fund intervenes. It was reiterated that the preventive measures should be compensated by the Fund.[292]

3. When the Fund intervenes

The Legal Committee proposed in Article 4.1 that the Fund shall compensate person who has been unable to obtain full and adequate compensation, due to one of the following reasons:
(a) no liability under CLC
(b) shipowner is financially incapable and financial security under Art.VII does not cover or insufficient
(c) damages exceed the limitation of liability under the CLC or "under the terms of any other international Convention in force or open for signature, ratification or accession at the date of this Convention".

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[285] LEG/CONF.2/3, OR 1971, p55.
[286] LEG/CONF.2/C.1/SR.5, OR 1971, p339-343.
[287] LEG/CONF.2/3, OR 1971, p48-49. The US used the example that where an oil spill outside the territorial limits appears likely to affect adversely fishing operations within territorial waters, reimbursement for costs dealing with such a threat would be available.
[288] LEG/CONF.2/C.1/WP.27, OR 1971, p266. For related discussion, see LEG/CONF.2/C.1/SR.18, OR 1971, p450; LEG/CONF.2/C.1/SR.19, OR 1971, p459-462.
[289] LEG/CONF.2/C.1/SR.19, OR 1971, p460. This proposal was also supported by states like Ireland and France, see p460-461.
[290] FR Germany, UK, Netherlands, Japan, France, LEG/CONF.2/C.1/SR.19, OR 1971, p459-461. but according to Ireland, the CLC 1969 also provided for repayment in respect of preventive measures taken outside territorial waters to avoid damage to territorial waters or to the territory of a contracting state.
[291] The principle in the Canadian proposal was approved by 34:0 with 4 abstentions, LEG/CONF.2/C.1/SR.19, OR 1971, p462.
[292] Norway stressed that Articles 4 and 5 should make clear that the preventive measures taken by the shipowner should also be compensated, see LEG/CONF.2/3, OR 1971, p55. This was supported by almost all the delegations. For detailed discussion, see LEG/CONF.2/C.1/SR.5, OR 1971, p339-340.

There was not so much debate concerning sub-paragraphs (a) and (b). The only objection raised was from the oil industry against (b) where the Fund would compensate victims when the shipowner or his guarantor is financially incapable of meeting his obligations in full and no adequate financial security is available. In these instances the oil industry would indeed be guaranteeing the risk of other industries' insolvency. However, according to the Netherlands, the deletion of this provision would deprive injured parties of compensation. He believed that in many instances the oil industry would be able to exercise some influence in ensuring the adequate insurance of shipowners, in this case, the interest of the victim prevailed.[293] These two subparagraphs were easily agreed upon.

As for sub-paragraph (c), there was some debate on if the Fund should fill in the gap between the CLC and other conventions. One group of delegations represented by the UK and US argued that the liability of the Fund should start from a common basis.[294] If the gaps between other conventions like the 1957 Limitation Convention and the CLC would anyway be bridged, it would serve as disincentive for the wider participation of the CLC. However, it was considered important to encourage the 1957 Convention states to join the CLC 1969.[295] Otherwise, as pointed out by the UK delegate, there would be the situation where the Fund was confronted with different liability in different states for the same type of incident and it would be inequitable.[296] The other ground represented by France, Belgium, Norway, Greece and Federal Republic of Germany believed that believed that the Fund should also make up the difference between the 1957 Convention and the Fund Convention.[297]

UK proposed that given the incompatibility of conventions, particularly the 1957 Convention and the CLC 1969, the 1957 Limitation Convention should be denounced as far as oil pollution damage is concerned.[298] This was supported by Romania, USSR,[299] but objected by delegations such as France, Norway, Federal Republic of Germany.[300] In the end, the UK proposal was rejected.[301]

Ireland proposed to delete the last part of sub-paragraph (c), which means the Fund would only cover the difference between the Fund Convention and the CLC.[302] This gained support from Canada, but largely opposed by Netherlands, Federal Republic Germany and Belgium.[303] As a result, the Irish proposal was also rejected.[304]

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[293] LEG/CONF.2/3/Add.1, OR 1971, p139-140.
[294] UK, LEG/CONF.2/C.1/SR.5, OR 1971, p336. this was supported by Romania, US, Ireland, Indonesia, p336-338.
[295] US, p62. UK and Romania expressed the same concern, see p59-61, 137.p336.
[296] UK, LEG/CONF.2/C.1/SR.5, OR 1971, p336.
[297] LEG/CONF.2/C.1/SR.5, OR 1971, p336-338, 366. Greece even argued that if a state is party to both the 1957 Limitation Convention and the CLC 1969, then the lower liability limits in 1957 Convention should apply. P337
[298] LEG/CONF.2/C.1/SR.7, OR 1971, p366.
[299] LEG/CONF.2/C.1/SR.7, OR 1971, p367.
[300] LEG/CONF.2/C.1/SR.7, OR 1971, p366.
[301] LEG/CONF.2/C.1/SR.7, OR 1971, p367.
[302] LEG/CONF.2/C.1/SR.7, OR 1971, p366.
[303] LEG/CONF.2/C.1/SR.7, OR 1971, p367.
[304] LEG/CONF.2/C.1/SR.7, OR 1971, p368.

Because all proposals to amend the provision in Article 4.1 (c) were rejected (also including US proposal which was not discussed here, see p368-370), the original text remained.

Although the draft Article 4.1 (c) of the Legal Committee was adopted without major change, there is final clause (Article 37) which provided (France, p595) that only states party to the CLC 1969 should be able to become parties to the Fund Convention 1971. Hence, the Fund would intervene only in three cases: the shipowner is not liable under the CLC, the shipowner and his financial guarantor is financially incapable of meeting the liability, or the damage exceeds the liability limits of the shipowner under the CLC.

4. Exoneration of the Fund

4.1 General debates on the exemptions of the Fund

In its draft convention, the Legal Committee proposed in Article 4.2 that the Fund shall incur no obligation if (a) "the pollution damage resulted from an act of war", or (b) "the identity of the ship that has caused the damage has not been established". Further in Article 4.3, it provided that the Fund may be exonerated from its obligation to the extent that the damage resulted from willful act or negligence of the party who suffered the damage.

These are the exemptions of the Fund. The exonerations are important in the sense they represent the extent to which the supplementary function of the Fund can go. The debates in this respect were also around whether the Fund should fill in the gaps as furthest as possible so that all damages not covered under the CLC should be compensated through the Fund Convention, or should the supplementary function of the Fund be restricted in certain cases. Delegations discussed in detail if the damage caused by act of war or unidentified source of ships (as prescribed in the draft convention Article 4.2) should be compensated. In addition, whether force majeure and the negligence of the government should be covered by the Fund was also discussed.

Some delegations believed that the defenses allowed to the Fund should be the same as the CLC, at least complying with the principles established in the CLC. According to them, the Fund should thus be exempted from act of war, force majeure and when the source of pollution is not identifiable. It was argued that the goal of the Fund was to supplement the CLC, thus its compensation should not be accorded against the principles in CLC, and should be limited to cases not covered therein, viz. cases where CLC although due but cannot be collected under CLC, and where damage exceed shipowner's limitation of liability.[305]

On the other hand, there was proactive approach of the US who considered that the Fund should ensure the broadest possible scope of compensation. Thus, the Fund should cover damage caused due to act of war and force majeure. The fundamental question according to the US was whether innocent victims should be denied compensation. The injured party should not be the one to bear the burden, particularly where the victim is not connected with the belligerent states. Rather, the

[305] Denmark, LEG/CONF.2/3, OR 1971, p51; the Netherlands, LEG/CONF.2/3, OR 1971, p140-141.

costs should be born by those producing, transporting and consuming the oil. Moreover, he considered it inequitable to deny relief to victims merely because the identity of the ship which caused damage is unknown. The purpose of the Fund is to afford compensation for pollution damage resulting from vessels. There is little reason for the victim to surmount additional burden of proving which vessel was in the area.[306]

4.2 Act of war, natural phenomenon an unidentified source of pollution

4.2.1 Act of war

First, concerning the act of war, large number of delegations agreed that the Fund should be exonerated in such a case. They believed that as the Fund would be contributed by the oil industry, it would be unfair and unreasonable to expect the private industry to provide coverage for such matters with public nature. It should not be the private industry, but the society at large that should bear the war risks.[307]

The US represented the states supported the Fund compensate damage caused by war.[308] He proposed to make the Fund compensate damage caused by war as he considered this a gap to be filled. This was supported by Singapore, Portugal, Spain, Ireland, and Lebanon. They agreed that if states who were not involved in war but suffered pollution damage as a result of such war activities, it would be equitable to distribute the damage among all nations through the Fund. This was particularly important for the states with long coastlines and thus vulnerable to pollution risks. Moreover, the victims in non-belligerent state would otherwise not be able to receive compensation.[309]

Upon the US proposal, Ireland raised the concern that if pollution caused by war were to be imposed on the Fund, the major oil importing states would not accept such convention.[310] Bulgaria was more concerned with the difficulty how the war damage and damage caused by oil could be separated if the US proposal were accepted.[311] Belgium argued that the insurance did not cover war damages, so the US proposal may lead to practical difficulty.[312] France argued that if the relief were to be provided to the shipowner, the same reasons should apply to the oil industry. The reasons: the act of war was excluded from other international conventions, for instance, those dealing with nuclear substances. Thus, to include act of war was not justified on legal grounds; it should also be excluded on economic grounds since it would place an intolerably heavy burden on the Fund due to high insurance costs against war risks; the inclusion

[306] LEG/CONF.2/3, OR 1971, p62-64.
[307] See the opinions expressed by the delegations such as Australia, Denmark, Greece, Japan, Sweden, see LEG/CONF.2/3, OR 1971, p49-57; the Netherlands, LEG/CONF.2/3/Add.1, OR 1971, p140-141, LEG/CONF.2/C.1/SR.1, OR 1971, p310, LEG/CONF.2/C.1/SR.1, OR 1971, LEG/CONF.2/C.1/SR.5, OR 1971, p335; UK, USSR, Italy, France, Romania, LEG/CONF.2/C.1/SR.5, OR 1971, p341-346.
[308] LEG/CONF.2/3, OR 1971, p62-64.
[309] LEG/CONF.2/C.1/SR.6, OR 1971, p342-345.
[310] UK also made the point that if war damage were not exempted, it would be difficult for his government to ratify the convention, LEG/CONF.2/C.1/SR.6, OR 1971, p344-345.
[311] LEG/CONF.2/C.1/SR.6, OR 1971, p345.
[312] LEG/CONF.2/C.1/SR.6, OR 1971, p345. The US counter argued that there were some insurance companies do cover many war damage risks, but not insure against oil pollution damage from war. So the Fund should fill in this gap. P345

of act of war was not justified on moral grounds either. If the shipowner were to be relieved from paying compensation for damage not caused by him, it was then not right that the oil industry should have to pay compensation for damage caused by factors outside its control. The Fund should not be a charity to compensate all victims of pollution.[313] The US proposal did not gain too much support and was finally rejected.[314]

4.2.2 Natural phenomenon

Second, as to the natural disasters, opinions largely diverged. Some delegations considered the Fund should be exempted in case of force majeure.[315] Their arguments were similar to those on the act of war: it is not equitable for the oil industry to bear this risk of natural disasters which are beyond the control of human being, while the shipowners are exempted under the Article II.2 (a) of the CLC.[316] They were afraid that to grant compensation to victims of oil pollution from natural phenomenon will make these victims more privileged than those from other causes (e.g. shore installations).[317] Moreover, to make the Fund pay for natural phenomenon may result in exhaustion of the Fund's assets without the possibility of satisfying other cases for which the Fund is established and which are specified in 1969 Resolution.[318] Other arguments to exempt the Fund from natural disasters disserted that normal insurance policies and liability conventions such as the Vienna Nuclear Convention also include the same exemption of natural disasters.[319]

The US and Canada were among those who were against allowing the Fund to use the defense of force majeure. They believed that the Fund contributed by oil industry was introduced to reduce the liability of the shipowner, and the innocent victims of natural disasters should anyway be compensated. Since they did not receive compensation through the CLC, the Fund Convention should not prejudice the interests of the victims.[320] Delegations such as Ireland, Australia, Federal Republic of Germany and Ghana all agreed that the natural disasters were different than the war risks on the ground that they were not within the realm of human activity. More particularly, the natural disasters covered by the Fund would be indispensable for the coastal states.[321]

Thus the Greece proposal to include natural disaster in the exemptions of the Fund was rejected by a slight majority.[322] (It is interesting to notice that during the preparation for the draft, the Legal Committee decided by a narrow majority that it was inequitable to deny compensation to victims of pollution resulting from a natural phenomenon which under no circumstances could

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[313] LEG/CONF.2/C.1/SR.5, OR 1971, p342-343.
[314] The opinion of the US, see p62-64. The vote on the US proposal to cover damage caused by war was 25 (against) to 10 (for) with 7 abstentions. Thus the US proposal was rejected. LEG/CONF.2/C.1/SR.6, OR 1971, p347.
[315] Denmark, Japan, Norway, Sweden, LEG/CONF.2/3, OR 1971, p51-57; France, LEG/CONF.2/3/Add.1, OR 1971, p138, the Netherlands, p141, LEG/CONF.2/C.1/SR.6, OR 1971, p348.
[316] UK, p61; Greece, Italy, p347; OCIMF, LEG/CONF.2/C.1/SR.6, OR 1971, p350.
[317] Greece, LEG/CONF.2/3, OR 1971, p52; Japan, LEG/CONF.2/C.1/SR.5, OR 1971, p335.
[318] Greece, LEG/CONF.2/3, OR 1971, p52; LEG/CONF.2/C.1/SR.6, OR 1971, 347.
[319] Japan, Norway, LEG/CONF.2/3, OR 1971, p54-56.
[320] US, p62-64; US and Canada, LEG/CONF.2/C.1/SR.6, OR 1971, p344, 348-349.
[321] LEG/CONF.2/C.1/SR.6, OR 1971, p349.
[322] The result of the vote was 19 to 14 with 8 abstentions, LEG/CONF.2/C.1/SR.6, OR 1971, p350.

be under the victim's control.[323])

The Belgian delegation submitted a proposal to cap the amount of compensation available from the Fund in case of natural disasters, and it was adopted.[324]

4.2.3 Unidentified source of pollution

Third, concerning the unidentified source of pollution, delegations largely divided into two groups, those who believed that the Fund should be exonerated from unidentified source, and those who believed the Fund should pay compensation for unidentified source pollution damage.

The delegations in favor of making the Fund pay for unidentified source of pollution were represented by the US. He believed it inequitable to deny relief to victims merely because the identity of the ship which caused damage was unknown. The purpose of the Fund is to afford compensation for pollution damage resulting from vessels. There is little reason for the victim to surmount additional burden of proving which vessel was in the area, although the victims should still meet the burden of proof that the oil came from a ship.[325] Sweden's argument was that pollution damage to a very large extent was caused by unidentified source, and victims would otherwise not be compensated, if the Fund did not provide compensation. He was aware of the increase of administrative costs if Fund pay for unidentified source pollution, but this could be reduced by stipulating that the Fund would pay compensation by unidentified source pollution only when the damage exceeds certain amount, which should be fixed at a fairly high level.[326] This was supported by delegations such as Australia, Canada, Ghana, Poland, Algeria, Kenya, Sweden and Spain.[327] More particularly, for countries like Ghana, Algeria and Kenya, their major concern was that the West African coast was confronted with heavy pollution due to the frequent passing tanker traffic although to identify the responsible ship(s) was impossible.[328]

On the other hand, there were delegations who held that the Fund should be exempted in case of offending ship unidentifiable. They considered it unreasonable to hold the Fund pay out when the source of pollution cannot be sheeted home to it. Otherwise it would make the administration of the Fund cumbersome and would entail high administration costs.[329] The UK also argued that it was mainly minor accidents that the sources are unknown. If it were the cases when the Fund needed to intervene, it was normally with very large oil spill, thus the source is very likely to be found out.[330] Greece also argued that although it might not always be easy to identify the party responsible for the pollution damage, but to insist on identification would provide a better

[323] See Greece, LEG/CONF.2/3, OR 1971, p52.
[324] LEG/CONF.2/C.1/SR.11, OR 1971, p381-384.
[325] LEG/CONF.2/3, OR 1971, p62-64, 355-356.
[326] LEG/CONF.2/3, OR 1971, p56-57.
[327] LEG/CONF.2/C.1/SR.7, OR 1971, p357-358.
[328] LEG/CONF.2/C.1/SR.7, OR 1971, p357-358.
[329] Representatives of this view included Australia, Denmark, Greece, Japan, p49-55; the Netherlands, p140-141; UK, p309, Norway, p313. See also Norway, the Netherlands, Japan, UK, and France P356-358. OCIMF was also against the idea that the Fund would compensate for unidentified source pollution while the shipowner was free of liability in such case. LEG/CONF.2/C.1/SR.8, OR 1971, p360.
[330] LEG/CONF.2/C.1/SR.7, OR 1971, p334. The Netherlands shared the same view, LEG/CONF.2/C.1/SR.1, OR 1971, p335.

solution than to place the burden of responsibility on the Fund.[331] Otherwise if the Fund would compensate automatically as proposed by the US, it would be unnecessary for the claimant to establish the identity of the offending ship. Thus, they were afraid it might lead to abuse of such right, and the claimants would not bother to even make attempts to identify the polluting ships.[332]

The major concerns over which delegations were debating were first of all, it might be unfair not to compensate the victims simply because they could not establish the ship's identity.[333] Second, if the Fund were not exempt from paying for unidentified source of pollution, it might result in the Fund being overburdened with claims simply for reimbursement of cleanup for all sorts of pollution damage even when it is not caused by tanker related accidents.[334] Third, if the victim does not need to prove anything in order to benefit from the compensation from the fund, they will have no incentive to identify the ship at all.

The Federal Republic of Germany proposed that the Fund should be exempted in the case when "the claimant cannot prove that the damage was caused by a particular incident of a ship".[335] This proposal was intended to clarify that the claimant has to prove only the oil spill is caused by the incident of a ship, but not necessary to give evidence of the fact that the oil escaped from one identified ships, which may be difficult if two or more ships were involved.[336] This proposal gained support from Greece, Belgium and France[337] despite some objections from Liberia and Romania who preferred the original wording in the draft.[338]

In the end, the proposal of the Federal Republic of Germany was adopted.[339]

4.2.4 Government's fault or negligence

In case of government's fault or negligence in maintaining lights or other navigational aids, the shipowner is exonerated under Article III.2 (c) of the CLC 1969. Hence, some delegations such as Netherlands, France, US, UK considered that the Fund should be exonerated in such a case as well. Their major concern was that it would be inequitable for private industries to be liable for the negligence of public authorities.[340] Belgium on the other hand pointed at the fact that navigational aids and signaling lights were placed voluntarily. If government could not make claims because of negligence in maintaining them, it would be an incitement for them to withdraw the voluntary service. The aim of the Fund was to provide compensation for preventive measures so that they would be encouraged. If the Fund were exempt in case of negligence in maintaining such facility, it would contradict with the aim of encouraging prevention.[341] Moreover, the difficulty in proving negligence of the government or other authority was also

[331] LEG/CONF.2/C.1/SR.5, OR 1971, P342.
[332] Belgium, France, LEG/CONF.2/C.1/SR.7, OR 1971, p357, 359-360.
[333] Ghana, LEG/CONF.2/C.1/SR.11, OR 1971, p384.
[334] UK, India, FR Germany, LEG/CONF.2/C.1/SR.11, OR 1971, p385-386.
[335] LEG/CONF.2/3, OR 1971, p51; LEG/CONF.2/C.1/SR.7, OR 1971, p356.
[336] LEG/CONF.2/3, OR 1971, p51-52.
[337] LEG/CONF.2/C.1/SR.7, OR 1971, p357; LEG/CONF.2/C.1/SR.11, OR 1971, p389.
[338] LEG/CONF.2/C.1/SR.7, OR 1971, p357-358.
[339] P389. The result of voting was 24 to 3 with 10 abstentions.
[340] LEG/CONF.2/C.1/SR.7, OR 1971, p352-354.
[341] LEG/CONF.2/C.1/SR.7, OR 1971, p354-355.

pointed out.[342] This consideration obviously gained the majority support and the Netherlands proposal to exonerate the fund from compensating in case of government's negligence in maintaining navigational aids was not adopted.

5. Amount of compensation

5.1 Discussion on compensation amount and amendment procedure

In Article 4.4, the Legal Committee draft provided that the overall ceiling for the Fund (including compensation paid under the CLC) should not be more than [450] million francs. In Article 4.6, the Assembly was empowered to increase the amount in Article 4.4 up to twice of it.

Majority of the delegations agreed that the figure as proposed by the Legal Committee 450 million francs (300 million dollars) was sufficient. One ground to support such a figure, according to them, was based on the previous experience of major disasters. Especially considering the costs of Torrey Canyon incident, 450 million francs was twice amount of that incident.[343] France was even so optimistic to believe that damage on such a scale would be unlikely to occur in the future. His reason was that despite the increasing capacity of tankers, measures to prevent and to combat pollution have improved and have thereby brought down the cost of accidents. He was afraid a higher rate of compensation per disaster would entail higher contribution and this would hinder the Fund's implementation since the participation of more states would be required.[344] Another worry expressed by Norway was that a too high upper limit would make courts incline to be over liberal.[345] A third concern raised by Singapore was that if too high ceiling were fixed from the start, the oil companies might be encouraged to raise their prices, and it would mean a clear profit for them if the Fund had not to be used.[346] India expressed his concern that the poorer countries would be frightened by too high a figure.[347] Hence, the 450 million francs was considered by majority as sufficient at least for the time being.

In addition, in view of the amendment procedure in para.6 which facilitated the possibility of revising, some delegations believed that the current amount of compensation did not have to be set too high. They believed this flexible procedure could facilitate revision in the future and should be sufficient guarantee for the future.[348]

This also confirmed their belief that the amendment procedure should be maintained. The delegations in favor of maintaining the amendment procedure included, particularly, Japan, Australia, Canada and Sweden.[349] They believed such an amendment procedure should be retained as a safeguard and it had the advantage of being flexible to meet the changing situation

[342] LEG/CONF.2/C.1/SR.1, OR 1971, p354-355; LEG/CONF.2/C.1/SR.10, OR 1971, p378-380.
[343] Australia, LEG/CONF.2/3, OR 1971, p50; Japan, LEG/CONF.2/3, OR 1971, p55; Norway, LEG/CONF.2/3, OR 1971, p56; Sweden, LEG/CONF.2/3, OR 1971, p58-59; FRG, LEG/CONF.2/C.1/SR.8, OR 1971, p362.
[344] P138-139, 363-264.
[345] LEG/CONF.2/C.1/SR.8, OR 1971, p362.
[346] LEG/CONF.2/C.1/SR.8, OR 1971, p363.
[347] LEG/CONF.2/C.1/SR.8, OR 1971, p364.
[348] Norway, OR 1971, p56, 313, 362; Sweden, OR 1971, p58-59; France, OR 1971, p315.
[349] See LEG/CONF.2/3, OR 1971, p50-59.

and to allow for further development.[350] The normal machinery for revision of international convention was in general very unwieldy. The US believed that by empowering the Assembly to increase the amount of compensation could ensure that the Convention would not become obsolete too quickly and to ensure efficiency.[351]

On the other hand, some delegations raised doubts concerning the degree of revision in Article 4.6 being to double the current amount. The Netherlands considered that 450 million francs could be increased only a little, but not so much as to be unrealistic.[352] India was afraid 900 million francs would probably encourage the oil industry to raise prices, and thus harm the interest of developing countries. He was reluctant to see the 900 million to be reached.[353] Liberia was afraid the escalation clause might present serious legal dangers. He would prefer a modest increase in the initial amount.[354]

There were a few delegations doubting if there should be such an amendment procedure at all.[355] They considered the authorization of the Assembly to amend the amount was against the rule of international law, *delegeta potestas non datur*, being only the plenipotentiaries who had signed the agreement had the authority to amend it, moreover doubling the capital was a substantial amendment.[356]

The UK proposed in WP.15 a package deal to fix the aggregate amount of compensation at 750 million francs and to omit the amendment procedure in Art.4.6. His argument was that 750 million francs more than 3 times the maximum liability adopted in CLC and should be enough to cover any damage that was likely to occur. Because even when tanker size continued to increase, and money value to fall, the new limitations on tank size and improved techniques for cleaning up oil spills tended to counteract these effects. Moreover, the Fund should have reserve. Hence, the 450 million contained in the Legal Committee draft should be increased.[357] This was supported by Spain and Canada.[358]

The US considered 1 billion francs is the minimum that would be adequate to meet the contingencies of future developments in ocean transport of oil.[359] According to the explanation on his position, the US would prefer no liability limit and Fund should meet all claims. But it seems necessary at the international level to have a limit, and he proposed accordingly a figure which should enable the Fund to deal with any eventuality.[360]

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[350] See, in addition, the view expressed by the US, p64, LEG/CONF.2/C.1/SR.9, OR 1971, p371-372; Norway, USSR, Greece, the Netherlands (p335), LEG/CONF.2/C.1/SR.8, OR 1971, p362-363; Greece, LEG/CONF.2/C.1/SR.9, OR 1971, p371.
[351] LEG/CONF.2/C.1/SR.8, OR 1971, p362.
[352] LEG/CONF.2/C.1/SR.5, OR 1971, p335.
[353] OR 1971, p333, 364, 371.
[354] OR 1971, p364.
[355] USSR: to raise the ceiling at present is unjustified, LEG/CONF.2/C.1/SR.2, OR 1971, p318.
[356] See for instance, OR 1971, Australia, Romania, Italy, LEG/CONF.2/C.1/SR.8, OR 1971, p363, LEG/CONF.2/C.1/SR.9, OR 1971, p371.
[357] LEG/CONF.2/C.1/SR.8, OR 1971, p361.
[358] LEG/CONF.2/C.1/SR.8, OR 1971, p362-363.
[359] LEG/CONF.2/3, OR 1971, p64.
[360] LEG/CONF.2/C.1/SR.8, OR 1971, p362.

However, most delegations preferred the LC draft to the UK proposal. They preferred a relatively low amount (450 million as in the draft, compared with the 750 million proposed by the UK) with a flexible amendment possibility. As for the amount, they believed 450 million was adequate at least for the moment, and there was no justification at present to set a higher amount.[361] As for the amendment procedure, lots of delegations expressed their concern that para. 6 would enable it to be doubled so that the system had all the necessary flexibility and would allow for development. These two elements were indivisible.[362] Lacking sufficient support, the UK proposal WP.15 was rejected.[363] Later, Romania, which represented the states who were against the amendment procedure, proposed in WP.11 to delete para.6 on the amendment procedure. However, this proposal was rejected as well.[364] Therefore, para.6 on the amendment procedure was maintained. Consequently, the figures of 450 and 900 million francs were also decided.[365]

5.2 Evaluation

From the process how the decision was made concerning the compensation amount and the amendment procedure, most delegations believed 450 million was sufficient for the foreseeable future, although their opinions yet largely varied concerning the amendment procedure. They held different attitudes not only towards the extent of the amending power, but also if there should be an amendment procedure at all. No decision could be made until the UK proposed a higher amount with not such amending procedure. Compared with the UK proposal, lots of delegations recognized the advantages of the LC proposal, thereby agreement could be reached.

450 million francs was adopted as the upper limit of compensation, together with the amendment procedure. This amount doubled the Torrey Canyon incident costs and hence was considered sufficient at least for the time being. However, it may still be doubtful if such a presumption based on past experience could indeed be used as guidance for the future pollution damage. Despite some doubts concerning the sufficiency of the figure, it was nevertheless adopted in view of the facilitated amendment procedure empowered to the Assembly of the Fund. This was crucial as the normal procedure to amend an international convention was lengthy and clumsy.

A conventional process to revise an international convention normally takes years. The facilitated procedure agreed in Article 4.6 may have the advantage of faster revision.

The Fund Convention lays down a total limit per incident (i.e. including the amount recovered under the CLC) which was originally around $36 million USD, but the Assembly of the Fund may in the light of experience, increase that limit up to double that figure. In 1979, the Assembly of the Fund decided to use this power, and raised the limit, not to the maximum, but to around

[361] As discussed before, Norway, Singapore, India, LEG/CONF.2/C.1/SR.8, OR 1971, p362-364.
[362] Norway, USSR, Greece, Netherlands, Bulgaria, Singapore, Japan, LEG/CONF.2/C.1/SR.8, OR 1971, p362-364.
[363] LEG/CONF.2/C.1/SR.9, OR 1971, p371, the result of the voting was 17 to 8 with 9 abstentions.
[364] This proposal was rejected by 21:12 with 4 abstentions, LEG/CONF.2/C.1/SR.9, OR 1971, p373.
[365] Vote on 450 million francs: accepted by 33:3 with 3, LEG/CONF.2/C.1/SR.9, OR 1971, p373; vote on 900 million francs: accepted by 18:5 with 12. p374. Later there was some attempt to re-open, but rejected, LEG/CONF.2/C.1/SR.25, OR 1971, p513-517.

$54 million USD.[366]

6. Relief of the shipowner

6.1 Relief as a principle

As mentioned before, it was decided in the 1969 Resolution that the Fund should serve two goals, being compensation of oil pollution victims and relief to the shipowner for the additional financial burden imposed by the CLC. The first goal of victim compensation was recognized by all the delegations at the 1971 Conference. However, concerning the second goal of the Fund, relief of the shipowner of his additional burden, large number of delegations agreed, yet some doubts were raised and even the need for relief was questioned.[367] In addition, the extent of the relief, being the amount of indemnity provided by the Fund to the shipowner was also one central topic for debate.

In Article 5 of the draft, the Legal Committee proposed that the Fund would indemnify the shipowner for the portion above certain amount. Majority of the delegations were in favor of such a principle of relief of the shipowner.[368] It was contended that the financial burden imposed on the shipowner in the CLC was too heavy (strict liability, higher liability limits compared with pre-1969 situation and compulsory insurance), and the Fund was designed to relieve the shipowner from the additional burden. The Fund was thus needed to provide relief to the shipowner and to strike a balance between the shipping and the oil industry.[369] Moreover, the two principles was already agreed in the 1969 Resolution which represented a compromise between interests of shipping nations and coastal states, and the 1971 conference should supplement but not amend the 1969 Resolution.[370] In addition, the Fund providing relief to the shipowner might attract more (shipping) states to ratify the Conventions.[371] Indeed, if it were not the prospect of the relief provided by the Fund, the CLC could not have been concluded in 1969 and states with tanker fleets would not ratify the CLC either.[372] Thus it was argued by some delegations that the broad acceptance of the CLC 1969 would highly depend on the shipowners being relieved from the additional financial burden imposed by the Convention.[373]

On the other hand, some delegations raised doubts concerning the relief as a principle. These include, *inter alia*, the UK,[374] US, the Netherlands, Romania, Australia, Federal Republic of

[366] Abecassis, D., IMO and Liability for Oil Pollution from Ships: A Retrospective, Lloyd's Maritime and Commercial Law Quarterly, 1983, p47.
[367] See for instance LEG/CONF.2/3, Australia, Germany, the UK, the US, LEG/CONF.2/3, OR 1971, p38-39, 44-46.
[368] The delegations that raised doubt concerning the second goal of the Fund include Belgium, Japan, Norway, Spain, Greece, Sweden, Ireland, Portugal, France, USSR, Denmark, Finland, India, Liberia, Italy, Singapore. For the discussion, see p65-72, 310-315, 393-395.
[369] Spain, Liberia, p310-311; Denmark, p486.
[370] Greece, p314.
[371] See e.g. Norway, p70-72; Portugal, Greece, LEG/CONF.2/C.1/SR.1, OR 1971, p312-314, Liberia, LEG/CONF.2/C.1/SR.12, OR 1971, p394-395.
[372] Ireland, LEG/CONF.2/C.1/SR.12, OR 1971, p392; LEG/CONF.2/C.1/SR.22, OR 1971, p487.
[373] See e.g. LEG/CONF.2/3, Denmark, Norway, p66-68, 70-72.
[374] In LEG/CONF.2/3, the UK stated that its delegation was not convinced the need to relieve the shipowner of the financial burden, see p45, p74-76. However, at a later stage, the UK decided to withdraw its opposition as the majority was in favor of the relief to shipowner, see p391.

Germany.[375] It was argued particularly by Australia and Federal Republic of Germany that if the limit under the CLC could be insured without difficulty, it was already a proof that the insurance market could more easily organize the appropriate distribution of costs, and thus there would be no basis for the Fund to undertake "the literal duties of insurer".[376] The US delegation was strongly against the relief as he was afraid such a relief might reduce the financial burden of the shipowner, thus he would take less care.[377] The OCIMF made the point that the additional burden was not necessarily born by the shipowner because the costs for insurance under the CLC could be included in the freight structure and passed on to the oil company charterer.[378]

Some delegations also raised the concern that the instrument should not place undue burden on the oil industry, while relieving the shipowner at the same time.[379] The cost was specifically mentioned as a factor to be taken into account when designing the Fund. Belgium was concerned that the relief function should not be formulated in a way to affect unfavorably the costs of insurance.[380] Norway believed the Fund providing cover above certain amount is cheaper than private insurance.[381] From economic point of view, it was important to find the solution that would provide compensation at the least cost. Excess insurance on the private insurance market would be more expensive than an international fund. The reduction in freight was important as well, because ultimately it was the consumers who would benefit from it.[382]

The Netherlands held a different view that it was not the aim of this conference to make oil industry take over the insurance to make transportation cheaper, but the important point was to what extent shipowners should be exonerated from additional financial burden.[383] This opinion was refuted by the Rapporteur. He stated that the Fund was to provide compensation for the victims and the victims were in fact consumers. In the end, it was the public who pay the bill. It would be irresponsible not to consider the financial and economic consequences of the solution to be adopted. Furthermore, the problem was not merely economic or political. It was not about dividing the risks between two industries. Without taking sides for specific figures, he felt the financial burden should be shared in such a way as to offer victims the best possible compensation at the lowest possible cost.[384]

6.2 Relief conditional on safety standards

Article 5 contained two alternatives which provided that the shipowner could be indemnified only when he complied with IMCO safety regulations (Alternative I). Otherwise, he would be denied the benefit of indemnification from the Fund (Alternative II). Both alternatives accepted that the relief should be provided conditional on the compliance with safety standards. Such an

[375] LEG/CONF.2/C.1/SR.1, OR 1971, p310-313.
[376] Australia, LEG/CONF.2/3, OR 1971, p64; FRG, LEG/CONF.2/C.1/SR.12, OR 1971, p397.
[377] LEG/CONF.2/3, OR 1971, p45-46; LEG/CONF.2/C.1/SR.12, OR 1971, p393-394.
[378] LEG/CONF.2/C.1/SR.22, OR 1971, p485.
[379] Belgium, LEG/CONF.2/C.1/SR.1, OR 1971, p314.
[380] LEG/CONF.2/3, OR 1971, p65.
[381] LEG/CONF.2/C.1/SR.12, OR 1971, p395.
[382] Norway, LEG/CONF.2/C.1/SR.22, OR 1971, p485-486.
[383] LEG/CONF.2/C.1/SR.12, OR 1971, p396; LEG/CONF.2/C.1/SR.22, OR 1971, p485.
[384] LEG/CONF.2/C.1/SR.22, OR 1971, p488.

approach was applauded by majority of the delegations.[385]

As observed by some delegations the commercial insurer could refuse bad risks; similarly, the Fund should grant relief only to those ships that meet the safety standards. Thus the Fund could give incentive for the shipowner to comply with safety standards and the Fund should not be responsible for those rejected by the commercial insurer.[386] In this respect, the Fund may have certain preventive effect. In turn, better prevention means less obligation or compensation (thus less cost) incurred for the Fund. These delegations believed such a link between the Fund and safety standards could encourage the shipowners to apply minimum safety standards.[387]

Moreover, Canada pointed out that the Fund Convention in fact provided that oil consumers should subsidize ships. However, the major concern was laid with innocent victims, and the oil consumers should not subsidize the shipowners who do not fulfill his function in preventing oil spill. In order for such relief to be socially responsible, it should be linked with the application of safety standards.[388]

On the other hand, some delegations were against establishing any link between relief to the shipowner and the safety regulations. The main opponents included the UK, the Netherlands, France, Japan, and Liberia.

The UK considered such a link would not have real effect in reducing accidents. According to him, the shipowner already had substantial incentive to observe safety regulations since his record was considered in assessing his insurance costs. He doubted if the shipowner would in practice take into account the seemingly remote possibility of their ship causing so much pollution damage that the Fund had to pay.[389]

Second, if the relief granted was based on observance of safety standards, the organization of the Fund would have to be larger and more complex, and thus incur additional expenditure.[390] However, the Fund was not designed to be a technical or administrative body that supervises or ensures the compliance with safety regulations. The preventive effect is only a by-product, not the primary goal of the Fund. The major concern of the Fund was victim compensation, and prevention should be better acquired through a separate mechanism specialized in prevention.[391] It should be noted that at that time a separate instrument specialized prevention was projected to be established in 1973.

Many delegations expressed their hope that the Fund could provide more effective safety measures, a Working Group was thus set up to draft such measures. The Working Group

[385] Belgium, Denmark, LEG/CONF.2/3, OR 1971, p65-69; Federal Republic of Germany, Sweden, LEG/CONF.2/C.1/SR.1, OR 1971, p311-315; Italy, Norway, Spain, LEG/CONF.2/C.1/SR.12, OR 1971, p394-396.
[386] Federal Republic of Germany, LEG/CONF.2/C.1/SR.12, OR 1971, p397; Canada, LEG/CONF.2/3, OR 1971, p65-66.
[387] US, p45-46, 393-394, 481; Canada, p65-66, 390-391; Ghana, Norway, p312-313; FRG, Singapore, p397.
[388] LEG/CONF.2/C.1/SR.12, OR 1971, p390-391, LEG/CONF.2/C.1/SR.23, OR 1971, p493.
[389] LEG/CONF.2/C.1/SR.1, OR 1971, p309.
[390] UK, LEG/CONF.2/C.1/SR.21, OR 1971, p481.
[391] France, p142-145, 314; UK, Netherlands, Liberia, p391-396.

submitted its report.[392] It has agreed on some basic principles. One was the safety measures should be applicable to the ship rather than to the flag state of the ship. Another basic principle agreed was that the safety measures should be based only on rules contained in Conventions that had entered into force, rules that were therefore binding (being mandatory in nature, not merely on recommendations). The report provided that the Fund might be exonerated from obligations to indemnify the shipowner if, by actual fault or privity of the shipowner, the ship did not comply with the requirements of four international conventions, or of amendments "of important nature" to any of those conventions as follows: the International Convention for the Prevention of Pollution of the Sea by Oil 1954 as amended in 1962, or the International Convention for the Safety of Life at Sea 1960, or the International Convention on Load Lines 1966, or the International Regulations for Preventing Collisions at Sea 1960. This provision was approved.[393]

The final version of the Fund Convention in Article 5.3 adopted the report of the Working Group. Hence, the Fund shall be exonerated if it could prove the causal link between non-compliance with the above-mentioned conventions and the incident. According to Norway, it was designed to take into account cases in which conventions might be contravened on various small points not directly connected with the incident.[394] Canada was however unsatisfactory with the result of the Working Group. He considered that the potential victims' protection would be very slight and the Fund would have little protection against claims from shipowners in respect of incidents which would not have occurred if proper precautions had been taken. The shipowner should receive only a minimum degree of subsidy, but not more.p493

6.3 Amount of relief

In the Legal Committee draft, it provided in Article 5.1 that the shipowner would be indemnified for the portion:
(a) > [1000] francs/ton, or [105] million francs, whichever is less
(b) < 2000 francs/ton, or 210 million francs, whichever is less

This was based on French-Swedish compromise. These amounts were considered appropriate by the Norway and Denmark delegations. They were afraid if the figures were too high, there would be few cases that the oil industry actually covered. In the end, it would still be the shipowner who carried the financial burden alone.[395]

The UK proposed higher amounts "1700 francs" (in substitution for "1000 francs") and "150 million francs" (in substitution for "105 million francs").[396] Although his first position was against the relief function, it now reviewed and changed to think it appropriate to take as a basis the TOVALOP which provided for a limit of the dollar equivalent of 1724 francs, and to adopt the round figure of 1700 francs. The upper limit would then have to be raised from 105 to 150

[392] LEG/CONF.2/C.1/WP.64, OR 1971, p230-231.
[393] This provision was approved by 33:0, with 7 abstentions, LEG/CONF.2/C.1/SR.22, OR 1971, p483.
[394] LEG/CONF.2/C.1/SR.21, OR 1971, P480.
[395] LEG/CONF.2/C.1/SR.22, OR 1971, p485-487. Ireland, India, USSR, Greece held the same view that the figures in the Legal Committee proposal were preferable, p487-489.
[396] LEG/CONF.2/C.1/WP.74, OR 1971, p297.

million francs.[397]

Netherlands proposed 1500 francs to replace the 1000 francs.[398] His major concern was that too much relief to the shipowner would be too harsh for oil industry, thus states with strong oil industry might refrain from ratifying the convention.[399] He pointed at the change taking place since 1969, when the TOVALOP had come into force, the insurance market seemed prepared to accept risks which it before refused and the Committee should therefore not allow itself to be tied down by 1969 Resolution.[400] This was supported by Japan.[401]

The US preferred even higher amount, and 1500 francs was the minimum he could accept.[402]

However, neither the UK nor the Netherlands proposal could gain sufficient support at the indicative vote.[403]

At this stage, the issue whether the Fund should act as direct insurer or re-insurer came to the spotlight and was debated. Draft Article 5.2 provided that at the request of the shipowner who maintained adequate insurance as required under the CLC, the Fund should indemnify the shipowner for the part above certain amount. According to this provision, the Fund shall act as financial guarantor or a direct insurer for the shipowner.

This provision caused debate among delegations because some of them considered the Fund should better act as re-insurer of the shipowner's insurer since it could reduce administration costs,[404] some believed the Fund's function should not be limited to re-insurer only,[405] and some others simply considered such a provision should be deleted as it added extra complication.[406] France was of the view that no distinction should be made between the direct insurer and re-insurer.[407] The majority opinion at this stage seemed to be in favor of deleting this complicated provision.[408]

UK expressed his doubts at the manner in which one industry would subsidize another.[409] In his view, if the compromise were construed as an undertaking to restore the position for shipowner to what it had been prior to 1969 and to provide shipowning countries with free insurance against the pollution of their coasts, in legal parlance that amounted to a complete and total failure of

[397] LEG/CONF.2/C.1/SR.22, OR 1971, p485.
[398] WP.31, p272-273.
[399] LEG/CONF.2/C.1/SR.22, OR 1971, p489.
[400] LEG/CONF.2/C.1/SR.22, OR 1971, p485.
[401] LEG/CONF.2/C.1/SR.22, OR 1971, p488.
[402] LEG/CONF.2/C.1/SR.23, OR 1971, p493.
[403] UK amendment was rejected by 23:10 with 4 abstentions, Netherlands amendment WP.31 was rejected by 16:13 with 8 abstentions. LEG/CONF.2/C.1/SR.22, p489.
[404] Netherlands, p145. His delegation later changed opinion to delete such a provision.
[405] Spain, LEG/CONF.2/C.1/SR.12, OR 1971, p399.
[406] Romania, WP.40, UK, Sweden, Netherlands, Federal Republic of Germany, p489-491.
[407] LEG/CONF.2/C.1/SR.23, p490-491, 497.
[408] Indicative vote decided to delete para.2 16:14 with 7 abstentions. Hence, the majority attitude at this stage was to delete the para.2. LEG/CONF.2/C.1/SR.23, p491.
[409] LEG/CONF.2/C.1/SR.23, p493. He stated his position, it had withdrawn its opposition to the principle of relief, and then proposed 1700 francs, and then it indicated that it could accept Netherlands figure as the last limit. His delegation analyzed the vote on the Netherlands proposal, and those in favor comprised 72% of the oil importing countries, and those opposing it accounted for 16% of those countries.

consideration.[410] But some delegations disagreed with the UK's interpretation and considered it would not be one industry subsidizing another.[411]

While intensely debating on whether the para.2 should be maintained, delegations proposed figures varying from the 1500 francs/ton and 125 million, to 1250 francs/ton and 105 million.[412] Lots of delegations related the specific figures with the decision on paragraph 2, whether to maintain it or not. France proposed 1250 francs, on the condition of retention of para.2.[413] This was supported by states like USSR, India, Finland, Italy, Bulgaria, Senegal Greece, Egypt, and Liberia.[414] They believed in reasonable degree of participation by the two interests concerned. But on the other hand, states like Netherlands,[415] UK, US,[416] Canada,[417] Australia were still against it.[418]

Denmark, Norway and Sweden, after private consultation, proposed the figures of 1500 francs and 125 million francs respectively. In addition, they proposed to leave the option open for the Fund to decide if it would act as an insurer in any given case.[419] The Netherlands urged the Legal Committed to consider such a proposal due to the influence of the Scandinavian countries. The 1969 Resolution emanated from the Scandinavian countries. If their proposal were rejected, the Fund would not be set up, and the CLC 1969 would never come into force and compensation for oil pollution damage would still be regulated by national legislation.[420]

Finally, the Scandinavian proposal after the private consultation was accepted, both the figures of 1500 francs and 125 million francs and the option between direct insurer and re-insurer in paragraph 2.[421]

6.4 Evaluation

Lots of delegations accepted the relief of the shipowner from the additional financial burden under the CLC 1969 as a principle, while some delegations raised doubts concerning the relief as a principle. Those in favor of such a relief function were mainly the shipping states, such as Spain, Liberia and Denmark. The major objection against such a function was that it would

[410] LEG/CONF.2/C.1/SR.23, OR 1971, p494.
[411] Liberia, Norway, LEG/CONF.2/C.1/SR.23, OR 1971, p493.
[412] See LEG/CONF.2/C.1/SR.23, OR 1971, p496-500.
[413] LEG/CONF.2/C.1/SR.23, OR 1971, p493.
[414] LEG/CONF.2/C.1/SR.23, OR 1971, p494-496.
[415] The figure should not be lower than 1500 francs and para.2 2 should be deleted. LEG/CONF.2/C.1/SR.23, OR 1971, p495.
[416] 1500 francs was the minimum acceptable. Retention of para.2 would lead to the creation of a large staff and would transform the Fund into an insurance company. He favored a small administrative structure on the line of the CRISTAL. LEG/CONF.2/C.1/SR.23, OR 1971, p495.
[417] Statistics provided by the oil industry indicated that had the CLC 1969 been in force, the Fund would have only been called upon to intervene in 3 incidents. It would be useful to shipowners and members of P&I seeking indemnification in a number of instances. LEG/CONF.2/C.1/SR.23, OR 1971, p494, 495
[418] LEG/CONF.2/C.1/SR.23, OR 1971, p495.
[419] LEG/CONF.2/C.1/SR.23, OR 1971, p496.
[420] LEG/CONF.2/C.1/SR.23, OR 1971, p498.
[421] The majority view has changed to amending para.2 to include an option for the Fund to decide on whether it takes up the role of re-insurance or direct insurance, as proposed by the Scandinavian countries. See p501. Article 5 as a whole as amended was approved by 19:5 with 15 abstentions. See LEG/CONF.2/C.1/SR.24, OR 1971, p512.

reduce the incentives for taking care from the shipowner. In addition, the preventive effect of the Fund was also stressed. This was considered an innovation at the time. However, the finally adopted Fund Convention restricted its preventive effect to the listed 4 conventions, mainly due to the concern that the primary function of the Fund was remedy and not *ex ante* prevention. This decision although represented advancement to certain extent, was considered disappointing.

Another major concern for the Fund Convention was clearly to ensure the entry into force of the CLC. This might explain the reluctance of the delegations to go much further in stressing prevention of the Fund. They were afraid a too pro-active approach might not be accepted by large number of states for the entry into force of the conventions, more particularly, those with strong shipping interests.

The importance of costs when designing the fund was stressed particularly by Belgium and Norway delegations. They believed the best solution was the one providing compensation at the least costs. The delegations also tried to identify which mechanism either the Fund functioning as re-insurance or direct insurance would be cheaper. However, due to practical and technical restrictions, it seemed rather difficult, if possible at all, to make estimates on such costs.

7. State responsibility

Article 15.1 of the draft Fund Convention provides that the contracting state shall maintain and keep up to date a list with contributors in its territory. Article 13.2 provides that contracting state shall ensure under national legislation that any duty to contribute is fulfilled and shall take any appropriate measures under its law, including imposing sanctions, when necessary, on those who are under an obligation to contribute.

The Legal Committee also proposed in a footnote that in certain cases, the states should be denied the benefits of compensation and indemnification from the Fund. The two cases were suggested: (1) where the state has substantially violated its obligations, and (2) where the contributions in respect of that state are in arrears above a certain percentage. The reason for the Legal Committee to introduce such a proposal, according to its explanation was that in some cases legal action against the defaulting contributors might not be sufficient and might take a long time to conclude, thus defeating the objective of making funds available to pay compensation to victims. It was therefore suggested that some form of ultimate sanction against the state should be provided in these cases.

Delegations at the 1971 conference had different opinions concerning the responsibilities that a state should perform related to the contribution to the Fund.

One group represented by France, Spain, Japan, USSR and Liberia was against imposing heavy obligations on states concerning payment of contribution to the Fund. They argued that the burden of contribution should not be placed on the oil importing country, but on the oil companies.[422] The sole responsibility of the state should be to legislate to enable the Fund to

[422] Spain, LEG/CONF.2/C.1/SR.1, OR 1971, p310.

take legal action against defaulters and to provide the information required to establish the scale of contributions annually.[423] The Fund should take steps to recover the contributions, if necessary by means of legal action, rather than deprive the victims of pollution damage occurring in that state of their right to compensation.[424]

They considered the sanctions as envisaged in fn.15 that the states in certain cases would be denied the benefits of the Fund inappropriate. They argued that it would be unjust to deny citizens of the compensation because of the default of other citizens with no connections, and the shipowners should not be denied of the eventual right of relief due to circumstances over which they have no control.[425] It was unfair to make the victims suffer for faults of the contributors or of the contracting state.[426]

On the other hand, there are states who accepted the "ultimate sanction" imposed on states to ensure contribution to the Fund.[427] According to the US, this would ensure a high level of contributions from and cooperation by all contracting states. Where a contributor has been delinquent, the contracting state had always the option to assume the obligation itself, thereby avoiding any sanction of denial of benefits as a result of the delinquent contributor. The state can then proceed against the delinquent contributor for reimbursement as appropriate.[428] However, this was rejected.[429]

As a result, article 13 was decided as a whole without sanctions on the states.[430]

8. Contribution to the Fund

8.1 Debate on the minimum amount and calculation of contribution

Article 10 of the Legal Committee draft provides that
"1. Contribution to the Fund shall be made in respect of each contracting state by any person who, in the calendar year … has received in total quantities exceeding [x] tons
(a) in ports or terminal installations…
(b) in any installations …
2. for the purpose of calculating the minimum quantities of contributing oil… received within that contracting state by any subsidiary or commonly controlled entity shall be regarded as received by that person."

As explained by the Rapporteur, the intention of the Legal Committee draft to introduce a minimum quantity of oil received below which an oil company of a contracting state is exempt

[423] France, LEG/CONF.2/C.1/SR.1, OR 1971, p315.
[424] LEG/CONF.2/3/Add.1, OR 1971, p163.
[425] Japan, LEG/CONF.2/3, OR 1971, p99.
[426] Liberia, LEG/CONF.2/C.1/SR.15, OR 1971, p426.
[427] Federal Republic Germany, Canada, Norway, Sweden, LEG/CONF.2/3, OR 1971, p97-99; US, LEG/CONF.2/3, OR 1971, p101.
[428] US, LEG/CONF.2/3, OR 1971, p101.
[429] This was rejected by 24:7 with 5 abstentions. LEG/CONF.2/C.1/SR.15, OR 1971, p426
[430] This was approved by 37:0 with no abstentions. LEG/CONF.2/C.1/SR.16, OR 1971, p429.

from contributing was to reduce administrative costs for the Fund.[431] Belgium argued against inserting such a figure because he was afraid governments would face difficulties in getting their legislative bodies to accept a provision which creates a distinction between large companies on the basis of an arbitrary and very problematic criterion which could, in addition, distort commercial conditions in contracting states.[432] The argument of France against such a provision was that in order to have as big a pool of contributions as possible, and therefore a lower rate for contributions, there should be no exemption from contribution for quantities of oil received annually below certain figure. This figure should be as low as possible.[433]

The Netherlands on the other hand agreed with the principle of the draft. He regarded it as an efficient method to avoid a complicated and expensive Fund administration. According to his delegation, the minimum level should not be set too low, since collection costs should not exceed the contribution. On the other hand if the quantity were fixed at a very high level, unacceptable differences in competition might be created. He believed the quantity should probably be fixed at between 100,000 and 200,000 metric tons.[434] UK proposed a figure of 150,000 tons to be inserted in paragraph 1. According to him, this would be large enough to exclude small importers in respect of whom administrative costs for the Fund would be greater than the amount of contributions, yet small enough to ensure that contributions are paid in respect of a high percentage of contributing oil.[435] This was supported by OCIMF and Greece.[436]

In addition to the debate on the specific amount for minimum contribution, there was also debate on para.2, if the oil received by "subsidiary or commonly controlled entity" should be counted in as well. Belgium and Federal Republic Germany proposed to delete para.2 (p84-85).[437] Their worry was that the wording of para.2 did not make clear under which circumstances an entity is to be considered a subsidiary or commonly controlled entity. Company law of different countries varies, thus the courts might have difficulty in deciding such concept. Belgium believed if a low enough minimum tonnage were set in para.1, para.2 could be deleted.[438]

On the other hand, some delegations believed that the purpose of para.2 was to prevent oil companies from circumventing the obligation of contribution by setting up subsidiaries which would each import less than the minimum tonnage set by para.1. They considered it important to avoid fraud by using the safeguard clause as provided in the draft para.2.[439]

UK rebutted Belgium. The UK believed a fairly high figure was needed in para.1, and para.2 should be retained. A fairly high figure was needed to exclude small importers in respect of whom the administrative costs for the Fund would be greater than the amount of contributions. Also fraud by oil companies must be prevented. As pointed out by Germany, it is impossible to

[431] Rapporteur, LEG/CONF.2/C.1/SR.13, OR 1971, p404.
[432] LEG/CONF.2/3, OR 1971, p84.
[433] LEG/CONF.2/C.1/SR.13, OR 1971, p407.
[434] P153-154.
[435] LEG/CONF.2/3, OR 1971, p86.
[436] LEG/CONF.2/C.1/SR.13, OR 1971, p406-407.
[437] LEG/CONF.2/3, OR 1971, p84-85.
[438] LEG/CONF.2/C.1/SR.13, OR 1971, p405-406.
[439] Japan, US, p85-87 Netherlands P153-154, France, supported by Bulgaria, para.2 offered some protection against fraud, to delete it would be dangerous, p407.

list all the applicable provisions in company law in para.2, but the Fund might be satisfied with a general safeguard clause, on the understanding that national courts could decide whether or not a company was an affiliate of some other company.[440] Greece supported UK 150000 tons and retention of para.2

The figure of 150,000 tons proposed by the UK was approved by 29:0 with 7. Belgium and FRG proposal to delete para.2: rejected 29:4 with 3. Article 10 was approved by 32:0 with 5.[441]

It is interesting to notice that India once proposed in WP.19 to take into account the distance the oil was carried when calculating the quantity of contributing oil. According to him, the risks of pollution increased with the distance over which the oil was carried.[442] This was supported only by Spain and Ghana.[443]

Most delegations disagreed with the Indian proposal. These mainly include the Netherlands,[444] Brazil, Australia, Japan, Belgium, OCIMF, Greece, Portugal[445] They believed that the oil pollution risks were not directly related to the distance traveled. Norway employed the P&I experience to show that more than 2000 cases of oil pollution recorded in the last 11 years, practically all of then at or near port entries or near terminal facilities.[446] Moreover, they were afraid the Indian proposal by using the distance criterion would complicate calculations.[447]

Under such pressure, India withdrew its proposal.[448] Thus, it was decided to base the calculation of contributions solely on the quantities of oil received to avoid a complicated and expensive Fund administration.

8.2 Evaluation

The requirement of a minimum contributing oil tonnage was built into the Fund Convention. This was considered crucial since without such requirement, "a single early claim against the Fund could have serious effects on the economics of the few early contributors".[449] The contributors might then be discouraged from entering such an arrangement, since this might be detrimental to their financial interests. As suggested by the OCIMF at the 1971 Conference, the industry scheme CRISTAL had avoided the potential damaging influence by requiring that companies importing 50% of the oil transported by sea should be party to the agreement, and

[440] LEG/CONF.2/C.1/SR.13, OR 1971, p407.
[441] LEG/CONF.2/C.1/SR.13, OR 1971, p408.
[442] LEG/CONF.2/C.1/SR.13, OR 1971, p404.
[443] LEG/CONF.2/C.1/SR.13, OR 1971, p405.
[444] LEG/CONF.2/3/Add.1, OR 1971, p153-154.
[445] LEG/CONF.2/C.1/SR.13, OR 1971, P405-406. However, Greece, Portugal agreed that most oil spill incidents occurred in port areas, and they considered it would be more reasonable to consider cargo route than the distance traveled. Interestingly, Indonesia believed it should be possible to simplify Indian proposal by replacing the ton/mile concept by the ton/area concept and basing contribution on destination area such as the Persian Gulf, Japan and so on.
[446] LEG/CONF.2/C.1/SR.13, OR 1971, p405. France held the same view, p152-153.
[447] UK, LEG/CONF.2/C.1/SR.13, OR 1971, p405; France, p152-153.
[448] LEG/CONF.2/C.1/SR.13, OR 1971, p406.
[449] Abecassis, D., The Law and Practice relating to Oil Pollution from Ships, Butterworth & Co (Publishers) Ltd, 1978, p232.

suggested a similar figure for the Fund.[450] The resulting figure of 750 million tons is about half the oil imported in 1970, including coastwise trade, so it was clearly the idea of the Conference to ensure that the Conventions did not enter force until about half of the world's oil imports qualified as contributing oil.[451]

The provision in para.1stems from a desire to prevent the Fund being saddled with complicated, additional administrative work which would be quite disproportionate to the revenue anticipated from small oil companies.

9. Concluding remarks

The advent of the Fund Convention 1971 actually found its roots in the conflicts at the 1969 Conference. If it were not the prospect of an international fund the 1969 Conference would have failed to adopt any instrument at all.[452]

As agreed in the 1969 Resolution, the Fund was designed to supplement the CLC and to fill in the gaps left by the CLC. Thus, one major issue concerning the design of the Fund was what gaps in the CLC should be filled and how.

It was also hoped that with the adoption of the Fund Convention, the international regime would be attractive to more states so that they would come into force soon.[453]

As stated by Canada, the gaps to be filled in the CLC should cover the nature of the pollutant, the area in which the accident had caused damage, the capability of the Fund to provide compensation and, most importantly, the role of the Fund in subventing commercial shipping operations that complied with certain minimum safety standards.[454]

As there was already discussion at the 1969 Conference on the establishment of an international fund, the basic principles of the fund were more or less agreed among the delegations. So at the 1971 Conference, the idea of a fund contributed by the oil industry was agreed upon with no difficulty. It was also widely recognized among the delegations that the supplementary nature of the Fund Convention made it obvious that the basic principles set up in the CLC should not be deviated, otherwise the application of such a Fund would be extremely difficult. The main discussions concerning fund centered around the question to what extent the fund should and could expand the compensation in the direction of an adequate compensation of oil pollution victims, and around the operation of such a fund. The question if the fund should act as a re-insurer or direct insurer was raised as well.

It is very obvious from the adoption of the Fund Convention 1971 that it was tailored to

[450] LEG/CONF.2/5, OR 1971, p16 – 17.
[451] Abecassis, D., 1978, p233.
[452] Abecassis, D., 1978, p220.
[453] This view was expressed by lots of delegations at several occasions. See, for instance, the UK, the Dutch delegations, LEG/CONF.2/C.1/SR.1, p309, 310. France, p315
[454] LEG/CONF.2/C.1/SR.2, OR 1971, p317-318. LEG/CONF.2/C.1/SR.21, OR 1971, p482.

supplement the provisions of the CLC 1969. As a result, the same definitions were adopted to keep consistency and the liability of the Fund starts when the liability under the CLC ends.[455]

By way of relief to the shipowners, the Fund was to act as a guarantor for part of the liability for which the shipowner would normally purchase insurance or other financial security.[456] The Fund was seen as a mutual insurance company for oil pollution incidents set up by government but financed by the oil industry. It was considered a useful mechanism to distribute a part of the cost of oil pollution damage amongst the cargo interest.[457] However, this kind of distribution happens only where large-scale oil pollution damage occurs and the shipowner is allowed to limit his liability under the CLC.

The supplementary function of the Fund was agreed easily at the conference. However, this may be problematic in practice. Under the CLC, ships carrying less than 2000 tons of oil are not obliged to take out liability insurance against oil pollution risks. As a result, it is very likely that shipowners of such ships will be incapable of meeting his financial obligations due to lack of financial guarantee.[458] Moreover, ships not properly classified and hence not covered by the CLC will be covered by the Fund regime. The sinking of a ship due to the fact that she was not entered with any classification society is not considered as a "deliberate act" of the shipowner[459] which is the only fact that gives rise to a right of action for indemnity. Such actions are all the more difficult where shipowners are protected by their right to limit their liability. Hence, the supplementary function of the Fund was viewed as protection provided to coastal states in all circumstances but with ironic consequence. It may be seen as encouraging operation of sub-standard ships.[460]

VIII. Comparison between the voluntary and international regime

1. TOVALOP v. CLC 1969

Both TOVALOP and the CLC 1969 require the tanker owner to compensate the pollution victims up to certain amount, and they both require the tanker owner to maintain financial guarantee. There are still a number of differences despite their basic similarities:

(1) TOVALOP is based fault liability with a reversal of burden of proof, while CLC was based on strict liability of the tanker owner. As discussed before, the traditional maritime tort rule has always been fault liability, hence the TOVALOP liability rule complied with the traditional fault liability. On the other hand, the CLC which has adopted a strict liability constitutes a deviation from the traditional rule.

(2) TOVALOP defined the tanker owner specifically to include a bareboat charterer, whereas the CLC channels all the liability to the shipowner. A bareboat charterer is a person who leases a

[455] Abecassis, D., 1978, p221.
[456] Mensah, T., The IOPC Fund: How it All Started, The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, the IOPC Funds, 2003, p48.
[457] Abecassis, D., 1978, p233.
[458] See the case of Vistabella (Caribbean, March 1991) dealt with under the 1971 Fund and the Zeinab case (United Arab Emirates, April 2001) dealt with under the 1992 Fund.
[459] See the Zeinab case (United Arab Emirates, April 2001), the 1992 Fund, p21.
[460] Vanheule, B., 2003, p555-556.

tanker and has exclusive possession and control of it during the term of the lease.
(3) TOVALOP provides for a recovery only for national (or local) government for removal costs, while the CLC permits recovery for pollution damage from pollution damage incurred by anyone, whether or not a governmental entity.[461] Moreover, the financial limits under these two regimes are different: TOVALOP limits are $100 per GRT or $10 million whichever is less, CLC limits are $160 per limitation ton or 16.8 million whichever is less. Hence, the TOVALOP limits are lower than the CLC limits.
(4) TOVALOP covers vessels designed and constructed as a bulk carrier for crude petroleum and derivatives (except liquefied gases),[462] while under the CLC 1969 tanker should actually carry oil in bulk as cargo. Hence, TOVALOP applies to both laden tankers and tankers in ballast, whereas the CLC covers only laden tankers. Moreover, there were many government owned tankers who were members of TOVALOP, but the CLC does not apply to state owned ships.
(5) TOVALOP (in 1973 version) compensates for reasonable costs incurred to remove the threat of pollution even if there is no actual spill, while the CLC 1969 compensates only where actual damage has occurred.
(6) The definition of oil under TOVALOP seems somewhat narrower than that under the CLC, since the TOVALOP definition excludes whale oil. However, TOVALOP (in 1973 version) defines oil to be "crude oil and its residuals (including but not limited to asphalt, bitumen, fuel oil, heavy diesel oil) and lubricating oil", the CLC defines oil to mean "any persistent oil such as crude oil, fuel oil, heavy diesel oil, lubricating oil". It seems the TOVALOP definition has a more extensive reference than the CLC definition.[463]
(7) The procedure of settlement of claims under TOVALOP is quick and inexpensive, compared with that under the CLC.[464]

2. CRISTAL v. Fund Convention 1971

Both CRISTAL and Fund Convention 1971 are designed to supplement the previous regime in the sense that they both compensate victims of pollution who would otherwise not otherwise be compensated. Moreover, both regimes grant aid and support to cleanup and preventive measures by tanker owners involved in a pollution incident.[465] CRISTAL encourages a tanker owner to clean up by compensating him for cleanup expenses incurred by him in excess of $125 per GRT or $10 million whichever is less up to $30 million; the Fund Convention does so by indemnifying the tanker owner for liability under CLC between $120 per ton or $125 million whichever is less and $160 per ton or $ 210 million, and by treating reasonable costs of preventive measures taken by a tanker owner as recoverable after the CLC limits have been exhausted, even if the incident arose with tanker owner's privity and fault.[466]

Differently, CRISTAL comes into play only when the claimant has exhausted other means of compensation; the Fund Convention does not have such a requirement, it intervenes on top of the

[461] Becker, G., 1974, p620.
[462] Article I (a), IV of TOVALOP.
[463] Clause I (e) of TOVALOP and Article I (5) of CLC 1969. See Becker, G., 1974, p621.
[464] Wilkinson, D., Moving the Boundaries of Compensable Environmental Damage Caused by Marine Oil Spill: The Effect of Two New International Protocols, Journal of Environmental Law, Vol.5, 1993, p72-73.
[465] Becker, G., 1974, p624-625.
[466] Becker, G., 1974, p625.

CLC, where for one reasons or another the CLC does not provide or does not provide sufficient compensation.[467]

3. Evaluation

From the comparison between the international and the voluntary regimes, it can be said that the both the CLC 1969 and the Fund Convention 1971 have followed the have followed the model of the industry schemes to a large extent, and they inherited the cost-sharing principle developed by the industry schemes of TOVALOP and CRISTAL.[468]

The early versions of the TOVALOP and CRISTAL were more different from the international conventions than the later version. This is because the industries attempted to adapt their voluntary schemes to be more in line with the international regime. One example is that the fault liability in the original version of TOVALOP was soon changed to the strict liability since the adoption of the CLC. The intention of the industry efforts was to adapt to the international regime was to avoid complication and hence facilitate the compensation of victims.

IX. Concluding remarks

The international regime on civil liability for marine oil pollution is set up through the CLC 1969 and Fund Convention 1971. From the above analysis on the legal history of such an international regime, particularly how it was debated among all member states of the IMCO and how it was designed, the following conclusions can be reached:

1. From the victim's perspective, his situation seems to be improved through the two international conventions. Prior to 1969, there was no international rule regulating the liability and compensation for oil pollution damage, the victims were often left uncompensated or insufficiently compensated compared with the damage he suffered, not to mention the difficulty in establishing the responsible party and proof of evidence in the legal proceedings. Moreover, the insolvency of the responsible party (very often the shipowner) left the victims still uncompensated even in a successful case. Compared with this situation, the CLC 1969 and Fund Convention 1971 have introduced certain elements in the interest of victims in the sense that the responsible party is established through the CLC, being the registered tanker owner; the insurance requirement was made compulsory, hence there is some form of guarantee for the financial capacity of the responsible shipowner. Although the liability of the shipowner is only limited to certain amount, the victims may still have the remedy to the Fund for the amount above the liability limits of the shipowner. In this respect, the CLC and Fund Convention have made the life of the victims easier compared with the previous situation.

2. The whole international regime as established through the CLC and the Fund Convention seems to be a method to strike the balance among all the powerful interest groups. One obvious

[467] Becker, G., 1974, p625-626.
[468] Hetherington, A., The Growth of the Federation and the Establishment of Other Compensation Agreements, in: Ten Years of TOVALOP, 1979, ITOPF, p3.

example is that at the 1969 conference, it was the prospect of oil industry contributing to the regime through a compensation fund that the shipping interest agreed to assume liability under the CLC. In this respect, the whole international regime can also be considered a system distributing the oil pollution costs between the shipping and the oil industry. The Fund was thus established not only for the victim compensation, but also to relieve the heavy burden on the shipowner as introduced in the CLC. The Fund was thus introduced as an integral part of the compromise solution reached at the 1969 conference.[469]

Other examples of such balance striking among competing interests under the international regime can be found in the decision on the limitation of shipowner's liability. The CLC 1969 replaced the then prevailing fault liability with strict liability. This was considered excessive by those with strong maritime shipping industry. In return, a right of limitation was granted to the shipowner to alleviate the harsh consequence of strict liability. The limitation amount nevertheless doubled the amounts in the 1957 Limitation Convention. So in this sense, the shipowner's liability was lifted in a way. However, the Fund contributed by the oil industry would indemnify the shipowner for his liability exceeding certain amount. The whole international oil pollution compensation system thus took into account the political consideration for the shipping countries to accept the conventions which impose strict liability and higher (compared with the 1957 Limitation Convention) limitation.[470] Originally under the 1957 Limitation Convention, for the largest ship at the time, the limitation would be n more than $8 million USD and for the more common size of tanker the limitation would be half of that amount or even less.[471] The limits provided under the CLC have almost doubled this amount. The limitation of liability was thus considered a political price for ensuring that sufficient maritime nations would ratify the convention.[472] The limitation introduced in the CLC can also be seen as a means to apportion the costs of oil spills between the shipping and the oil industry under the two-tier system.

The fact that delegations from different states representing different interests and hence lobbied for one particular regime was another illustration of such a theory. Even within one sovereign state, there is a balance to strike between the different or even competing interests, including the environmentalists and the coastal interests, the shipping and the oil industries.[473] At the conference different states held different views about e.g. who should bear the liability of pollution compensation during the negotiating of the CLC. Different states have different interest in its internal interests in the sense that the economic situation, the development of industries, the available resources and the political concerns vary from state to state. The position taken by the delegation thus often reflects its domestic interest. The shipowning states took a strong stance to oppose draconian liability, as they would be the party who bears the liabilities and the ensuing costs. The advent of international convention is also a balance of interest and compromise of the essential background industries and different interest groups.

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[469] Abecassis, D., 1983, p47.
[470] Jacobsson, M., 1993, p39-55.
[471] Abecassis, D., 1983, p46.
[472] Wilkinson, D., 1993, p74.
[473] Johnston, D. (ed.), The Environmental Law of the Sea, International Union for Conservation of Nature and Natural Resources, Gland, Switzerland, 1981, p203.

The end result of the debate on the international regime was that a two-tier system was established, the shipowner was the liable party in the first tier, and the oil receivers take the excess liability under the Fund Convention as a second tier. Thus the liability for oil pollution compensation is shared between the shipping and the oil industry at an international level.

The final version of CLC reflected the substantial influence of a majority of the European maritime states.[474] The Fund was considered a kind of mutual insurance company for oil pollution compensation set up by the governments while financed by the oil companies.[475] As a result, industrial interests are interwoven with sovereignties of states in the operation of the Fund Convention. Hence, some scholars observed that the formulation of the international oil pollution liability system hinges on compromises among economic and political interests to solve the deadlock on the basic issues of the responsible party and the nature of the liability.[476]

3. Past experience played an important role in the decision of the international regime. When deciding on the amount of liability for the shipowner and the amount of the compensation fund, the delegations referred to the existing conventions on limitation of liability and the previous accidents. The finally decided figures were higher than those under the previous conventions or the costs of the previous accidents. However, if such amounts would be sufficient to deal with the future accidents were not judged by applying objective criteria. This was already doubted by delegations such as Norway who questioned if the past accident could actually be used as a criterion for the assessment of future damage.[477]

Moreover, the introduction of limitation and channelling of liability into the oil pollution compensation regime was not the result of consideration based on objective criteria either, but simply on the long tradition of limiting shipowner's liability in maritime law and the existence of channelling in nuclear liability conventions, particularly the 1962 Convention on the Liability of Operators of Nuclear Ships. So the existing features of maritime law or nuclear law were copied into the oil pollution liability regime without justifying its legitimacy in applying to a different context.

4. During the negotiation for the international conventions, the preventive effect of the liability system or that of the compensation fund was stressed. Especially the way the Fund would indemnify the shipowner could be designed as an incentive mechanism for the shipowner to comply with safety standards led to lots of debate. However, the finally adopted Fund Convention restricted its preventive function to the four listed conventions. The major concern at the time was not to incur too high administrative burden for the Fund and the prevention should be better achieved through other instruments particularly dealing with the safety issue which was envisaged to be established in 1973.[478]

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[474] Kiern, L., The Oil Pollution Act of 1990 and the National Pollution Funds Center, Journal of Maritime Law and Commerce, Vol. 25, No. 4, 1994, p507.
[475] Jacobsson, M., 1993, p39-55.
[476] Kim, I., A Comparison between the International and US Regimes Regulating Oil Pollution Liability and Compensation, Marine Policy, 2003, Vol.27, p267.
[477] Norway, OR 1969, p658.
[478] Right after the occurrence of the Torrey Canyon incident, some scholars have discussed the possibility of establishing an international fund involving all shipbuilders, owners and charterers. (Such a fund is similar in

5. When debating on the liability system at the 1969 conference, the insurance issue was raised. It was recognized an insurance mechanism is an effective guarantee for the implementation of the liability convention. Hence, the need for obligatory insurance was agreed upon. At the same time, most delegations when talked about the insurance capacity, all explicitly or implicitly referred to the limitation of liability. So the insurance obligation of the shipowner was up to the amount of his liability limits. This was clearly under the influence of the insurance industry, more particularly, the P & I Clubs.

6. Both the CLC and the Fund Convention were preceded by industry agreements, TOVALOP and CRISTAL respectively. These voluntary agreements provided for compensation for pollution damage under the terms and conditions very similar to those subsequently included in the two Conventions. These schemes are considered the strike from the industry before the adoption of the international conventions which might take a long time before ratification.[479] These voluntary schemes did function well before the two international conventions could come into force as shown by the fact that TOVALOP once covered 97% of the world's tankers tonnage and CRISTAL had between 3 to 5 millions of USD fund available. However, with the entry into force of the International Conventions, the role of the voluntary agreements as interim measures was also questioned. This will be dealt in Chapter 4 on the evolvement of the international regime.

In all, the CLC 1969 came into effect in 1975 and the Fund Convention 1971 came into effect in 1978. Thus an international regime on civil liability for marine oil pollution came into operation. However, whether such regime works efficiently and whether it provides adequate compensation or gives incentives to take optimal level of prevention needs to be shown by time and further analysis.

concept to the state and federal unemployment compensation funds in the US.) Such a system could "act as an economic deterrent" to those with poor standards. See Nanda, V., The "Torrey Canyon" Disaster: Some Legal Aspects, Denver Law Journal, Vol.44, 1967, p425.

[479] Popp, A., The Civil Liability and Fund Conventions: Model Compensation Schemes, The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, the IOPC Fund, 2003, p83.

Chapter 5 Evolution of the International Regime

I. Introduction

The international regime on civil liability for marine oil pollution was established through the CLC 1969 and the Fund Convention 1971, which came as reaction to the Torrey Canyon incident. The CLC came into force in 1975 and the Fund Convention came into force in 1978. The international regime finally came into operation after years of negotiation and a long ratifying process. Since the adoption of the CLC 1969 and the Fund Convention 1971, the gross volume of spilled oil has declined in the 1970s.[1] However, some serious oil spill incidents happened again, the Amoco Cadiz in 1978 and the Tanio in 1980, both happened off the French coast of Brittany. The experience with oil spills showed the shortcomings of the 1969/1971 regime, in particular with regard to the insufficiency of the compensation available in case of a major oil spill.

The 1969/1971 Conventions were therefore amended in 1984 in the form of Protocols. However, the withdrawal of the US made it impossible for the 1984 Protocols to come into force. The Exxon Valdez incident in 1989 made the US determined to draft its own legislation, the Oil Pollution Act 1990, which in effect has closed the door for the US to participate the international system. But as illustrated by the Exxon Valdez incident, the amended regime was needed, especially with respect to the increased amount of compensation. Hence, another diplomatic conference was convened in 1992, whereby the changes agreed in the 1984 Protocols were taken up in the 1992 Protocols.

The 1992 Protocols came into force in 1996. Not long after that, again some major incidents demonstrated the inadequacy of the international regime. These include, *inter alia*, the Erika in 1999 and the Prestige in 2002. Stimulated by these recent incidents, the CLC and Fund Convention were modified again in 2000 and 2003, to increase the compensation limits and to establish a Supplementary Compensation Fund respectively. The 2003 Supplementary Fund Protocol constitutes a major deviation from the original two-tier compensation regime, as it has included a third-tier compensation contributed by the oil industry. In reaction, the International Group of P & I Clubs agreed on a voluntary basis to increase their limitation amount for small tankers.

In this Chapter, the revision of the legal regime on the civil liability for oil pollution damage will be examined following a chronological order. Whereas the previous chapter focused on the reasons for the introduction of the 1969/1971 regime, this chapter will discuss why and how the international regime subsequently evolved after the original adoption of the two conventions. Moreover, the (old) voluntary industry schemes (known as the TOVALOP and CRISTAL) that existed until the late 1990s have contributed to the development of the international system, hence, their particular role in history will also be examined in the context of the evolving international conventions. It is interesting to notice that new voluntary industry schemes (STOPIA and TOPIA) were again adopted in the context of the third- tier compensation. Their

[1] Wu, C., 1996, p134.

particular roles shall also be examined.

II. The 1984 Protocols

1. Main reasons for revision and critiques

1.1 Historical background

The CLC 1969 entered into force on 19 June 1975 when 29 states ratified it.[2] The Fund Convention 1971 entered into force following the occurrence of the Amoco Cadiz incident in 1978. As the records of the Fund have shown, at the beginning of 1978, the required number of ratifications (8 States) was reached, but the quantity of contributing oil was still below the required 750 million tonnes. On 18 March 1978 when the Amoco Cadiz hit the French coast and spilled oil, France and the whole world became acutely aware of the potential magnitude of oil pollution incidents and their potential economic and environmental consequences. This accelerated the French ratification of the Fund Convention which reached the requirement of entry into force. Ironically, France had not acceded to the FC by March 1978, but it wasted no more time to accede to the FC on 11 May 1978.[3] The 1971 Fund thus started to be effective on 16 October 1978 with 14 Member States including seven European States, but with Japanese oil companies paying approximately 50% of the total contribution.

The 1969/1971 regime since its entry into force provided compensation for many cases. However, the amount of compensation proved to be insufficient in some major cases. Thus, this regime was confronted with some critiques. First major critique was that the 1969/1971 regime did not provide sufficient compensation as indicated by some major oil spills. France already at the fist session of the Assembly of the Fund in 1978 raised the need to revise the amount of compensation of the Fund by twofold.[4] Second, the definitions in the conventions were so vague and they were left to the interpretation to the national courts implementing such conventions.[5] Third, the fact that preventive measures were not compensated under the CLC 1969 was criticized.[6] Fourth, incidents compensated under the CLC 1969 only covered ships carrying persistent oil in bulk as cargo. When a ship in ballast caused pollution, no compensation could be acquired under the CLC, as the case *Olympic Bravery* shown.[7] Fifth, the geographical scope of application of the Convention was criticized to be too narrow. Later development of international law, especially the adoption of the UNCLOS has cleared up some confusion. In 1969 it was once proposed to expand the application of the CLC to high seas, this proposal was rejected. However, the adoption of the UNCLOS made such extension unnecessary.[8]

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[2] These states include, inter alia, the UK, Denmark, France, Sweden, Norway, Liberia, Lebanon, Algeria, Morocco, Fiji, Senegal, the Dominican Republic, Ivory Coast and Syria. Source of information: the US State Department, Office of Assistant Legal Advisor for Treaty Affairs, 5 June 1975.
[3] Abecassis, D., 1983, p48-49.
[4] Wu, C., 1996, p136-139.
[5] Kbaier, R. and Sebek, V., New Trends in Compensation for Oil Pollution Damage, Marine Policy, 1985, Vol.9, p269.
[6] Wu, C., 1996, p131.
[7] Wu, C., 1996, p130.
[8] Wu, C., 1996, p132.

Tensions emerged in the 1980s. Oil cargo interests argued that shipowners' limited liability was lagging behind rising damage mitigation costs and inflation, pushing the compensation burden for major spillages onto the oil importers. In contrast, CLC 1969 contracting states with sizeable tanker interests (e.g. Greece, Korea and Liberia) were expressing alarm at incidences of national courts breaking shipowner's right to limit liability under the convention, undermining in their view both the economic viability of their shipping industries and the much vaunted equity of application CLC 1969.[9]

A Diplomatic Conference was thus organized under the auspices of the IMO to revise the CLC 1969 and the Fund Convention 1971. This conference was held in London from 30 April to 25 May 1984, which adopted the 1984 Protocols to the CLC and Fund Convention.

Although the main concerns or justifications for the revision of delegations were largely different, almost all delegations already agreed at the beginning of the conference that the current system was in need of revisions. While a few delegations insisted on substantial amendment to the existing system,[10] most delegations considered that the current system has functioned relatively well and it was not necessary to design a new instrument.[11] There was also general agreement that the revised instrument shall encourage as wide as possible participation of the international regime. In this respect, the ratification of the US was considered of great importance for the two envisaged Protocols to gain support worldwide.

Thus, the main debates at the 1984 diplomatic conference concerned the increase of compensation amount and a simplified amendment procedure to expedite future increases in limitation amount, the channelling provision, the expanded scope of coverage (expanded geographic scope of compensation, compensation for restoration of natural resources, economic losses and preventive measures), and the deletion of the function of the Fund to provide relief to the shipowners. In addition, the organization of the work of the Fund, e.g. if it were to be one Fund operating or two Funds operating at the same time was debated.

1.2 Amoco Cadiz incident

The Liberian registered tanker Amoco Cadiz ran aground off the Brittany coast in March 1978, and spilled most of its oil and caused considerable damage. On 18 April 1984, the first phase of proceedings was completed. Less than two weeks after the judgment was issued, the diplomatic conference was held between 30 April and 25 May 1984 to revise the CLC 1969 and the Fund Convention 1971.

The nominal registered owner of the tanker was the Amoco Transport Company of Monrovia (Transport). Amoco International Oil Company (AIOC), a limited company with headquarters in Chicago, operated the Amoco Cadiz after its delivery to Transport. Standard Oil Company of Indiana (Standard), an Indiana company with its principal office and place of business in

[9] Mason, M., 2003, p2.
[10] LEG/CONF.6/C.2/SR.2, OR 1984, Vol.2; LEG/CONF.6/30, OR 1984, Vol.1, p333-343, submitted by Sweden.
[11] Cuba, OR 1984, LEG/CONF.6/C.2/SR. 1, OR 1984, Vol.2, p324.

Chicago was the parent company of which both Standard and the AIOC are subsidiaries. The cargo on board at the time of grounding belonged to Shell, represented by Petroleum Insurance Limited (PIL), which insured the cargo.

A decision was taken on 12 September 1979 that the proceedings were divided into two stages: the discovery of liability and the determination of damages. The US judge McGarr ruled that French law in determining liability was not applicable in substance. Therefore, the provisions of French legislation, stemming from the CLC 1969 were not applicable. The claims should be decided in accordance with US law. The defendant oil companies argued that the CLC was the only available legal instrument in the field of oil pollution damage and thus based on the channelling provision of the CLC, the owner of the ship is the only person responsible for the damages caused by oil pollution. The argument of the oil companies was to secure the channelling of liability to Amoco Transport, and free the other, financially stronger, members of the group of any liability.

Although the US judge did not apply the CLC 1969 in the first phase of the proceedings, he nevertheless placed an important emphasis on the interpretation given to the CLC 1969 in French law. Constant references were made in the judgment to the CLC, France and Liberia are parties to the CLC, while the US is not.

The judge ruled that even if the CLC was to be applied, it could not constitute the exclusive legal remedy available in the case of damage caused by oil pollution, and that victims could contemplate legal action against any persons other than the owner or his agent or servants.

The oil companies put forward in the second series of arguments that AIOC or Standard could be regarded as agents or servants of the tanker owner whereby their liability is exempted based on Article III (4) of the CLC. The judge rejected such allegation. A fortiori, as the parent company of Transport and AIOC, Standard could not fall into this category thus benefiting from the channelling provision.

On 18 April 1984, the judge ruled that the Amoco Transport, AIOC and Standard Oil were jointly and severally liable for the pollution damage caused by the Amoco Cadiz. The three companies were blamed for having failed to take measures which would have detected a fault in the steering gear, and for poorly maintaining the vessel. In particular, the AIOC was held responsible for negligence in maintaining the steering gear and inadequate training of the crew. Amoco Transport, as the owner of the ship, was held liable for the control of maintenance and proper care of the ship. These failures were held to constitute such serious aspects of negligence, that the two companies were declared to be unlimitedly liable. Furthermore, Standard Oil was deemed to have been subject to a duty to exercise proper control over its two subsidiary companies. It was therefore declared "liable for its own negligence and the negligence of AIOC and Transport with respect to design, operation, maintenance, repair and crew training of the Amoco Cadiz".[12]

[12] The judgment of 18 April 1984, p107.

The joint and several liability allows for specific claims to be addressed to the most solvent companies (in the case of the AIOC and Standard) for the totality of compensation. The company actually paying damages is then allowed subsequently to attempt to recoup the sums paid from other parties held liable.[13] This judgment was considered a milestone in the evolution of environmental law because it abandoned the classical rules of maritime law, and it represented the first step in the just recompense of pollution prevention and abatement efforts deployed by the French defendants, including the state, local authorities and private parties who instituted proceedings before the Chicago court.[14] The Amoco Cadiz legal proceedings, and especially the judgment of 18 April 1984, created a most important precedent, bringing about a positive solution to the problems of liability for oil pollution damage, outside the conventional framework, i.e. going beyond the provisions of the CLC. Some of the important concepts accepted by classical maritime law were put in doubt, especially those relating to the channelling of liability and limitation of liability. The judgment found those who were considered untouchable under the CLC liable.[15]

2. Increased compensation

2.1 General arguments for increasing compensation

One of the core issues of revision was to increase the compensation provided through the Conventions. All delegations agreed that the limitation amount under the CLC 1969 should be revised to provide adequate compensation for the victims.[16] The arguments most employed by the delegations to justify such revision were inflation[17] and wider acceptance of the Conventions.[18] It was also argued that economic and technological development has pointed at the direction of revision.[19] Although not fully supported by the whole Committee, some other arguments were presented by some delegations. These included, *inter alia*, the increased capacity of the insurance market[20] and the increased clean-up costs.[21]

Most delegations realized that the compensation affordable under current system should be increased, but there were diverging opinions concerning the extent to which the compensation amount should be increased. Some demanded a substantial increase,[22] while others preferred to have moderate increase.[23] Some believed that the compensation shall satisfy most cases,[24] some

[13] Kbaier, R. and Sebek, V., 1985, p273-274.
[14] Kbaier, R. and Sebek, V., 1985, p270.
[15] Kbaier, R. and Sebek, V., 1985, p275.
[16] SR.1, Japan, p315-318; Netherlands, p381.
[17] For instance, UK, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p315, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, 387; Japan, Cyprus, Greece, India, Poland, Republic of Korea and China, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p315; USSR, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p318; France, Malaysia, Netherlands, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p319; Sweden, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p322.
[18] For instance, OR 1984, see the views expressed by Japan, p315; Poland, the Netherlands, p319; UK, p373. The same view was held by some observer groups, e.g. INTERTANKO, p329; the Fund, p380.
[19] China, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p315.
[20] UK, LEG/CONF.6/C.2/SR.5, OR 1984, Vol.2, p373; Finland, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p380.
[21] Argued particularly by France and the Netherlands, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p319.
[22] Morocco, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p325; Netherlands, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p381; Sweden, LEG/CONF.6/C.2/SR.8, OR 1984, Vol.2, p403. DR Germany, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p379, against increase.
[23] New Zealand, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p324. Singapore was against a high limitation amount, LEG/CONF.6/C.2/SR.8, OR 1984, Vol.2, p401.

considered the amount should be increased to such an extent to cover even the catastrophic cases as well. A view was also raised that the revised compensation should encourage higher standards of operation and maintenance.[25]

Some delegations argued that the revised amount should be realistic or reasonable.[26] According to these delegations, pollution risks vary from country to country and the new ceiling should be realistic in each national context[27] so that it could gain wide support.[28] As argued by New Zealand who considered itself a country with relatively low oil pollution risks, if the limit were too high, his country would consider the CLC alone to be adequate, which might frustrate the entire philosophy of the CLC/Fund Convention. Thus, he was in favor of a moderate increase.[29]

But most delegations agreed that the relationship between the shipping and the oil industry as established under the 1969/1971 Conventions should be taken into account. It was agreed that the revision should not deviate too far from the original concept established under the two conventions, and the balance established under the CLC/Fund regime should be maintained.[30] Thus, the increase of compensation under the CLC should be accompanied with the increase of compensation under the Fund Convention. And indeed in the proposals concerning increase of compensation, it was mostly both the CLC and the Fund proposed to be increased simultaneously.

2.2 Specific amount

2.2.1 Increase of the amount

As for the specific limitation amount and its method of calculation under the CLC, the Legal Committee proposed two options: Alternative A provided that the shipowner could limit his liability to X units of account per tonnage and this amount should be between the minimum Y and the maximum Z; Alternative B provided that for small ships of not exceeding Y ton, the limitation should be X units of account, and for other ships of more than Y ton, the limitation of shipowner should be X plus Z units of account per additional ton over Y ton and the maximum should be W units of account. (Vol.1, p62) Most proposals from delegations implicitly adopted Alternative B.

It should be noted there were mainly two issues related to the liability limits that caused discord at the 1984 Conference. One such issue is the calculation of the limitation amounts, if the basis should remain on the tonnage of the ship. The OCIMF produced some graphs to show that there was no clear relationship between the size of ships and the cost of oil spills, and it therefore

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[24] The Netherlands, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p381.
[25] Brazil, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p316.
[26] Poland, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p319.
[27] Netherlands, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p319; UK, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p375.
[28] UK, LEG/CONF.6/C.2/SR.5, OR 1984, Vol.2, p373.
[29] LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p324.
[30] E.g. UK, Japan, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p315 and LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p381; China, OR 1984, Vol.2, p316; USSR, OR 1984, Vol.2, p316, 381; Poland, p319; Federal Republic of Germany, OR 1984, Vol.2, p376; German Democratic Republic, OR 1984, Vol.2, p379; Netherlands, OR 1984, Vol.2, p381; Norway, OR 1984, Vol.2, p402. INTERTANKO, p329, 378.

proposed to abandon the tonnage-related system and adopt fixed limitation amounts for all ship.[31] However, most government delegations attached great importance to the tonnage related system and they considered that the calculation of the limitation of liability of the shipowner should continue to be based on the tonnage of the ship.[32] Hence, despite some differing opinion from observers, the link between limitation and tonnage was nevertheless maintained.

Another area of discord was the limitation of small ships. It was pointed out by the International Group of P&I Clubs and some other delegations that where there is a minimum for small ships, the chances of intervention from the Fund for minor cases would be reduced.[33] If the Fund were regularly called upon, its usefulness would be doubtful, thus most delegations considered that there should be a minimum liability for small tankers.[34] On the other hand, some delegations also pointed out that such limitation for small ships should not be too high to put undue burden on small ships.[35]

The CLC 1969 did not prescribe any minimum amount to be paid in case of incident involving small tankers. This resulted in the situation that victims receive compensation disproportionately small compared with the amount of damage sustained. Under the 1971 Fund, numerous cases arose where the Fund had to bear large proportion of compensation paid as a result of incidents caused by relatively small tankers. Take for instance, the Mebaruzaki Maru No.5 (Japan, 1979) led to claims for £50,000, while vessel was only of 19 GRT, and the shipowner's limitation was merely ¥845,480 (£3740).[36]

Although there was general agreement that the compensation amount under the CLC and the Fund Convention should be increased simultaneously, the amounts proposed by the delegations were largely diverse. As pointed out by the Chairman, the proposed amount for the shipowner's liability limits under the CLC varied from $30 to 100 million, and the amount for the Fund varied from $120 to 300 million. As for small ships, the tonnage varied between 5,000 and 30,000 tons, and its minimum threshold varied from $3 to 15 million.[37] Seeing the difficulty in

[31] LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p376-377. OCIMF Statement, July 1982. Nevertheless, this document was criticized during the Legal Committee meeting in 1982 for the way in which the statistics had been selected. See OR 1984, Vol.1, LEG/CONF.6/7, p166. Wu,C., 1996, p159, fn.109. In addition, the International Group of P&I Clubs, in its table on distribution of incidents by ship size, concluded that there seemed to be no direct correlation between ship size and cost of spill, although spills from small ships were less frequent than large ships, and the average costs per incident increased with ship size. However, it was in favor of tonnage related system due to other considerations. LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p377-378.

[32] For instance, Japan, China, Canada, Italy and Morocco expressed their support for the tonnage related system, OR 1984, SR.1, p315-325; Democratic Republic of Germany, Sweden, Bahamas, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p380, 403, 404. Some organizations with observer status were also in favor of this approach, e.g. Friend of the Earth (FOE), ICS (International Chamber of Shipping), LEG/CONF.6/C.2/SR. 2, OR 1984, Vol.2, p328-329. OCIMF went so far as to propose the same approach applied to the Fund Convention as well. However, this was not adopted. See, p330, 619. The OCIMF later turned to compromise as well, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p376-377.

[33] P&I, INF.3, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p377-378. According to its data in table VII, among the 14 spills of ships of less than 1000 tons that Fund has intervened, if there were a minimum threshold, the Fund would not have compensated.

[34] For instance, the US, Canada, France, The Netherlands, UK, German Democratic Republic, Finland, Greece, USSR, Norway, Sweden, Denmark, OR 1984, Vol.2, p318-319, 378-381, 401-403.

[35] Norway, LEG/CONF.6/C.2/SR.8, OR 1984, Vol.2, p401.

[36] See IOPC Fund Annual Report 1988, p65. Also De la Rue, C. and Anderson, C.,1998, p101.

[37] P382. See for instance, the compensation limits proposed by the group of Japan, Cyprus, Greece, India, Poland, Republic of Korea and China, the delegations of US, Canada, France, the Netherlands, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p315-319; UK, Federal Republic of Germany, Democratic Republic of

reaching agreement, the UK even proposed informal consultations among delegations.[38] However, still no agreement could be reached, and the large diversity in proposed figures could not be mitigated.

Some delegations, when proposing on limitation amount, joined together in a group to strengthen their bargaining position. For instance, China, Cyprus, Greece, India, Italy and Poland proposed jointly limitation for small ships of not more than 5,000 tons or 10,000 tons should be $3 million (i.e. $ 285 or 300 per ton depending on if it were 5,000 or 10,000 tons to be chosen); the aggregate amount under the CLC and the Fund should be $100 -120 million per incident.[39] The figures proposed were considered by some including the US, France, UK to be too low[40] and it failed to gain wide support. On the other hand, the Scandinavian countries (Norway, Sweden, Denmark, and Finland) proposed some higher limits: for small ships of less than 5,000 tons, the limitation should be 3 million SDR. The limitation under the CLC was proposed to be 40 million SDR, for ships >105,000 tons, the aggregate amount of the Fund and the CLC was to be 120-150 million SDR.[41] This did not gain majority support either.

Later, the US together with Canada, France, Gabon, Federal Republic of Germany, Ireland, Malaysia, Netherlands and Zaire submitted a joint proposal with a different level of compensation. They proposed small ships to be not more than 10,000 GRT, and its minimum limitation should be 6 million SDR. Under the CLC, ships of 100,000 GRT and above, the maximum should be 60 million SDR (600 SDR/GRT). As for the Fund, they proposed the basic coverage to be 150 million SDR, and expanded coverage is 200 million SDR. The expanded coverage as introduced would take effect when contributing oil in 3 member states totaled more than 600 million tons.[42] The amounts proposed were considered by delegations, like China and Japan, too high.

After consultation with many delegations, The Chairman proposed a package proposal. Under the CLC, small ships of less than 5,000 GRT, its maximum liability should be 3 million SDR; above that, 420 SDR per ton, capped at 59.7 million SDR (140,000 GRT). Under the Fund, there were two tiers: the basic coverage (including payment from the shipowner) should be 135 million SDR; the expanded coverage (including payment from the shipowner) should be 200 million SDR. The expanded coverage is when the contributing oil from 3 states equals to 600 million tones.[43]

This proposal was objected by Japan as it considered the proposed amounts excessively high and destroyed the original balance. However, most delegations, although not completely satisfied with the proposal, were still willing to accept it in order to reach some positive results.[44]

Germany, Japan, USSR, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p375-379.

[38] LEG/CONF.6/C.2/SR.5, OR 1984, Vol.2, p373.

[39] LEG/CONF.6/C.2/WP.23, LEG/CONF.6/C.2/SR.8, OR 1984, Vol.2,p399.

[40] LEG/CONF.6/C.2/SR.8, OR 1984, Vol.2, p399, 401, 403.

[41] LEG/CONF.6/C.2/SR.8, OR 1984, Vol.2, p403-404.

[42] LEG/CONF.6/C.2/WP.36. LEG/CONF.6/C.2/SR.22, OR 1984, Vol.2, p554. This trigger mechanism, contracting states would participate only after the US and at least 2 other major oil contributing states had become party to the Fund.

[43] LEG/CONF.6/C.2/WP.44, LEG/CONF.6/C.2/SR.28, OR 1984, Vol.2, p615.

[44] Chile, Malaysia, UK, US, Denmark, France, Netherlands, Sweden, Canada. LEG/CONF.6/C.2/SR.28, OR

Thus the amounts as proposed by the Chairman were agreed upon,[45] and it should be remembered that the finally agreed amounts were only slightly lower than the amounts proposed by the US delegation and its group.

2.2.2 Evaluation

First, the need to increase the compensation amount was easily agreed upon probably because the major oil spills have shown that the compensation provided under the 1969/1971 regime was insufficient. Thus the danger of catastrophic oil spills was stressed. On the other hand, as pointed out by the International Group of P&I Clubs, there was a tendency to attribute too much importance to spectacular incidents, however to ignore others might not be the best solution either.[46]

The extent to which the compensation should be raised was center of the debate. Compared with the compensation provided under the original convention, the revised amount in the 1984 Protocols was a substantial increase. But the increase came as a result of compromise urged by the need to come with at least some improvement, and there is no final judgment on if such an increase could satisfy the catastrophic spills at least at that stage.

Second, to maintain the original balance as established under the 1969/1971 regime was one major concern of the delegations. However, there is no accurate description in the international conventions to describe such a balance. The general view of the delegations was that it would mean the costs of oil spills should be shared between the shipping and the oil industry, and thus both industries contribute to the costs of the activity. But concerning the specific share of each industry, the delegations had different interpretation and moreover it is difficult to decide. Some may hope by relying on the past experience with oil spill incidents, a pattern of spills could be found out, which might give guidance to the revision of the international regime. However, no precise figures were provided yet in this respect.[47]

Third, the delegations were very concerned with the impact of the revision could have on its national interests, although they had different attitudes towards the increase. For instance states like Malaysia were concerned that as a coastal state its economy was increasingly dependent on the marine sources.[48] Some countries (Japan, Cyprus, Greece, India, Poland, Republic of Korea, China) were more concerned that the increase in compensation should cause no harm to shipping industry, not impose undue burden on economies and not add costs of transportation so that it would lead to repercussion of living.[49] Some states were optimistic that there would be no adverse effect on shipping or economies of developing countries,[50] especially taking into

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1984, Vol.2, p615-619.
[45] LEG/CONF.6/C.2/SR.29, OR 1984, Vol.2, p621.
[46] LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p377.
[47] The UK delegation was also worried the past pattern of spills would not lead to any precise figure. LEG/CONF.6/C.2/SR.5, OR 1984, Vol.2, p373.
[48] LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p319.
[49] LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p315.
[50] Brazil, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p316.

account the increased safety standards under current international conventions, which will reduce the incidence of catastrophic pollution damage.[51] As for the impact on industries, Finland pointed out that the economic consequences of increase in limitation would be on shipowner, but it should be minimal and eventually on consumer in the form of freight.[52] The potential impact of increase in compensation on the insurance costs was also mentioned. But it was considered to be minor.[53] Fourth, as far as the calculation of the limitation amount is concerned, the tonnage related system was maintained. Although there was no absolute evidence to prove the relationship between the ship size and the cost of pollution damage, given the fact that most maritime conventions and the industry adopted such an approach,[54] almost all delegations (with only one observer, the OCIMF) agreed to continue to apply such a method. This shows the unwillingness of the delegations to deviate from the previous existing laws.

Fifth, the amounts in the Chairman's proposal were actually similar to those proposed by the US delegation. One reason why delegations were so enthusiastic about a compromise solution is that they were willing to see the ratification of the US as promised by its delegation. They believed that the participation of the US would improve the effectiveness of the whole international compensation regime.

2.3 Amendment procedure

Article XVIII of the CLC 1969 provides that the CLC could only be revised or amended by the diplomatic conference convened by the IMO, and such conference may be convened at the request of not less than one third of the Contracting States. Under the 1971 Fund, the Assembly may decide to increase the amount of compensation based on the experience of incidents and changes in the monetary values. Such increase can be maximum twofold of the original amount. Therefore, there is a difference between the amendment procedure under the CLC 1969 and the Fund Convention 1971, being it is necessary to convene a diplomatic conference to revise the compensation amounts under the CLC, but this was not necessary for the Fund Convention 1971. The different amendment procedure under the CLC and the Fund Convention was criticized by some. The Director of the Fund pointed out at the 1984 Conference that it was actually extremely difficult to raise the limits of the Fund to generally desirable amounts without revising the limitation under the CLC at the same time. According to him, that is the reason why the Fund compensation limits have not reached the maximum.[55]

The amendment procedure of the CLC 1969 was criticized to be cumbersome,[56] and the delegations agreed that some form of a facilitated amendment procedure was needed to keep the amount of compensation abreast of the evolving economic conditions and reflect the current

[51] Singapore, LEG/CONF.6/C.2/SR.8, OR 1984, Vol.2, p401.
[52] LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p380.
[53] Brazil, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p315.
[54] ICS, LEG/CONF.6/C.2/SR.2, OR 1984, Vol.2, p329.
[55] Director of the Fund, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p395. In addition, like the UK, he considered the amendment procedure under Article 4.6 of the Fund Convention proved a satisfactory means of revising the upper compensation by the Fund, and the CLC and the Fund should be revised simultaneously.
[56] E.g. Canada, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p386; UK, LEG/CONF.6/C.2/SR.6, OR 1984, Vol.2, p383.

needs, otherwise the new amended amount would soon lose meaning.[57] Most delegations were in favor of a simplified amendment procedure which should be easy and quick to be put into operation in practice.[58] While on the other hand, some delegations were afraid a too simplified procedure would cause constitutional problems and challenge legal constraints in domestic system.[59] Some delegations stressed the need for speedy and regular updating of compensation amounts on the one hand,[60] and some were more concerned with the danger or over-frequent amendments to lead to confusion and problems for industry.[61]

The Legal Committee in Article 15 of the CLC and Article 31 of the Fund Convention introduced special provisions concerning amendment of the existing compensation. The delegations attached great importance to the amendment procedure and some even considered the amendment procedure as important as the limitation amount itself.[62] It was also stated that the issue of amendment procedure is closely linked to the amount of compensation adopted. However, when the amendment procedure was put on discussion, the compensation amount was not decided yet.

One major debate related was around paragraph 9, which was known as the tacit acceptance procedure. Paragraph 9 provided that a Contracting State should be bound by the amendment unless it denounced the Protocol within certain time period. Delegations like China, Japan raised doubts concerning the legality of such a provision.[63] They considered that the compulsory implementation of amendment to one state, otherwise it would be obliged to denounce the Protocol was unacceptable infringement of sovereign rights of states to determine contractual relationship they wished to undertake. In contrast, delegations like France, Federal Republic of Germany and UK argued that such an approach was already adopted in some other maritime conventions.[64] Moreover, they argued that such a procedure may have the advantage of keeping uniform application of the two Conventions and avoiding complication.[65] The Netherlands made the assumption if there were not this paragraph 9, the Fund would pay compensation to differing

[57] IAPH, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p391, 397; US, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p385.

[58] Supporters for simplified amendment procedure include, e.g. Japan, OR 1984, Vol.2, p315; China, p316, 387; US, p317; USSR, Canada, p318; France, the Netherlands, p319; Sweden, p322; German Democratic Republic, p380; UK, Norway, p383; Australia, p385; Belgium, p388; Bahamas, p389; USSR, p389; Poland, p391; Greece, p391; Denmark, Democratic Republic of Germany, Italy, p392; some observers also agreed on a simplified amendment procedure, for instance, the IAPH, p391, 397; INTERTANKO, LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p397.

[59] Republic of Korea, OR 1984, Vol.2, p316; Finland, OR 1984, Vol.2, p389. US, OR 1984, Vol.2, p385; Mexico, Denmark, OR 1984, Vol.2, p392; Spain, OR 1984, Vol.2, p395; Argentina, OR 1984, Vol.2, p398.

[60] Main advocates for this view was US and France. The US proposed an effective amendment procedure should allow for regular updating of the compensation amounts. See p385. France stressed the amendment procedure should be essentially speedy, but the draft was not. If it were 24 months for acceptance and 12 months for entry into force, there would have to be 3 years before a proposed amendment could be operative, but by then the amount could be ineffective due to inflation. See p386.

[61] The Netherlands, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p391. The INTERTANKO also insisted that the maritime industry needs stable legal structure. See p397.

[62] US, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p385.

[63] Japan, expressed doubts concerning paragraph 9 in respect of compulsory denunciation since it is contrary to the principle of freedom of contracting states, as pointed out by China, p399. The same view was held by the USSR, Spain, Greece and Mexico, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p389-392.

[64] France argued that the tacit acceptance as contained in paragraph 9 was established by UNCITRAL and similar to the IMO convention itself, and not contrary to the law of treaties. SOLAS and MARPOL have more rapid amendment procedure which means they do not require specific request from contracting states for amendment. See, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p386, 393. See also the view expressed by Federal Republic of Germany, UK, Poland, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p391-393.

[65] Netherlands, OR 1984, Vol.2, p383, 391; Sweden, 322, 390; Federal Republic of Germany, SR.7, p387.

levels under the CLC, depending on whether the contracting states accepted the amended amount. Lower amount of limitation of the shipowner would apply to contracting states and the Fund would fill in the gap. This would be undesirable and such a view was supported by the Director of the Fund.[66]

Faced with the critiques that the tacit acceptance was against the sovereignty of the state, delegations including Federal Republic of Germany and UK argued that such an amendment procedure imposed no compulsion upon a state to remain in a system if it found unacceptable, and it already contains safeguard in the shape of possible denunciation but to the contrary this is a well-balanced concept of binding states without normal ratification procedure.[67]

It should be noted that maintaining the balance between the two Conventions was still one of the main concerns, as discussed above related to other respects of amendment. As a result, lots of delegations endorsed the idea that identical amendment machinery should be established in both Conventions so that simultaneous updating of the amount could be reached whereby the amounts in two Conventions could remain proportionate.[68]

Argentina proposed different wording so that the Protocol would not apply to states which have objected the amendments.[69] This gained support from Chile, Morocco, Italy, Spain, Brazil, Cuba, China and this was accepted.[70]

Another aspect of the facilitated amendment procedure was on the safeguard measures, being the under what circumstances the amendment procedure should be triggered. Australia, Finland, Canada all raised concern that only at the request of certain number of contracting states, the conventions could be amended, and it was agreed to be ¼ of the contracting states.[71]

It was agreed that both Conventions are to be revised simultaneously to maintain the existing balance between them.[72] Therefore, in both Protocols to the CLC and the Fund Convention, identical amendment procedure was added.[73] In order to use the amendment procedure, several factors need to be taken into account: experience gained from previous incidents, amount of resulting damage, changes in monetary values, effect of the proposed amendment on the cost of insurance, and the relationship between the limits in the two Protocols.[74]

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[66] The Director pointed out that if there were not Article 15 including paragraph 9, the Fund would be in an enormous difficulty. If different limitation, then how to calculate the contribution would be extremely difficult. LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p395.

[67] LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p393. In addition, Norway also attached to principle of article 15, but can be flexible in drafting. Paragraph 9 is not safeguard, but key provision of Article 15 and it is not contrary to treaty law. As a matter of fact, its delegation had already required in 1969 to include such a provision. P394. US agreed such a provision should be kept, LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p395.

[68] UK, Federal Republic of Germany, Japan, Bahamas, India, Democratic Republic of Germany, INTERTANKO, p383, 387-392, 397.

[69] Wp.35/Rev.1.

[70] OR 1984, Vol.2, p553.

[71] LEG/CONF.6/C.2/SR.7, OR 1984, Vol.2, p385-389.

[72] LEG/CONF.6/C.2/SR.23, OR 1984, Vol.2, p557.

[73] Art.15.1, para.10 of the 1984 Protocol to the CLC: Amendment of the Limits of liability; Article 33.1, para. 10 of the 1984 Protocol to the Fund Convention: Amendment of the amounts of compensation.

[74] Art. 15.5 of the 1984 Protocol to the CLC; Art. 33. of the 1984 Protocol to the Fund Convention.

2.4 Loss of limitation right

2.4.1 Background

However, due to some developments in the legal regime, particularly the introduction of the Nuclear Ships Convention 1962 and the CLC 1969 which provided for a separate limitation regime for nuclear liability and oil pollution, the 1957 Limitation Convention was in need of revision. Moreover, given the erosion of the monetary value, the amount in the 1957 Limitation Convention was outdated.[75] Hence, the LLMC 1976[76] was adopted to replace the 1957 Limitation Convention. The 1976 LLMC has considerably increased the limitation amounts and expanded the individuals who are entitled to limit their liability. Under the LLMC 1976, a distinction was made between claims for loss of life or personal injury and claims for property damage.

Under the CLC 1969, the shipowner would lose the right to limit his liability if "the incident occurred as a result of the actual fault or privity of the owner".[77] This was based on the then existing 1957 Limitation Convention. As the shipowner was often guilty of actual fault or with privity, it could lead to some problems in practice. The determination of the existence of fault or privity often delayed the compensation process, not only because the settlement was postponed due to the difficulty in determining whether the shipowner could take advantage of the limitation, but also the Fund could not settle the claims before the limitation was decided.[78] Moreover, different national courts often give different interpretations of the concept of "fault or privity" which led to disparities in compensation for oil pollution damage in contracting states.[79] This resulted in the adoption of the 1976 Convention on Limitation of Liability for Maritime Claims (LLMC), which opted for the criterion of "willful misconduct".[80] The adoption of this new criterion was considered a considerable increase of the liability limits, and the definition of fault could be amended in such a way that the right to limit would rarely be contested.[81] This was also accepted by the OCIMF, as it left less room for misinterpretation.[82]

2.4.2 Revision

The Legal Committee copied the provision concerning the loss of the right to limit liability in Article V.2 from the 1976 LLMC. Without too much debate, this was immediately accepted by most delegations.[83]

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[75] Coghlin, T., The Convention on Limitation of Liability for Maritime Claims 1976, in: Mankabady, S. (ed.), The International Maritime Organization, 1984, p234.
[76] Convention on Limitation of Liability for Maritime Claims 1976, adopted 19 November 1976, entered into force 1 December 1986.
[77] Art.V.2 of the CLC 1969.
[78] OR 1984, Vol.2, LEG/CONF.6/47, p55. According to the Clubs, the criterion of "fault or privicy" which determines whether the shipowner is entitled to limit his liability was one of the most glaring defects of the CLC.
[79] Wu, C., 1996, p174.
[80] Wu, C., 1996, p175.
[81] Wu, C., 1996, p175. OR 1984, Vol.1, LEG/CONF.6/7, p149.
[82] Wu, C., 1996, p175. OCIMF Statement, p6.
[83] Comment from the US: the acceptability of essentially unbreakable limitation is directly linked to the adequacy. p318; France: could accept the criteria for forfeiture of limitation right and for quasi-unbreakability, under the condition that the new figures were sufficiently high. LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p319.

Turkey proposed different wording for the conduct barring limitation right. According to his proposal for Article V.2 of CLC 1969, the shipowner could not limit his liability if he was deemed to be responsible for incident. He argued that the draft of Legal Committee was only if the damage was caused intentionally by the shipowner, but the wording was too restrictive and protect the shipowner's interest alone, and it did not mention who should bear the burden of proof although it seemed to be victim. His delegation's worry was that the victim would thus be put in a difficult position and in many cases the victim could not prove the damage was caused intentionally by the shipowner.[84]

However, the Turkish proposal was opposed by delegations such as Denmark, Democratic Republic Germany, USSR and France.[85] Even stronger, some delegations believed unbreakability was an important point for limitation of liability and they were against provisions like those proposed by the Turkey which represents a reduction of shipowner's rights.[86]

As a result, the same wording as adopted in the LLMC 1976 was approved.[87]

2.4.3 Evaluation[88]

The increase of the limitation amount was considered propelling force for the convening of the 1984 diplomatic conference. One crucial issue was to what extent the ceiling of liability could be increased. The finally adopted figure was well below that proposed by the French delegation who was the principal victim of Amoco Cadiz and the promoter of the 1984 conference. The French delegation originally requested a limit of $100 million.[89] But this amount was significantly higher than the $30 million target proposed by China, Greece, India, Italy, Poland, Japan, Singapore and Korea.[90] It seems these countries have different interests at stake.

Accordingly, the amount of the IOPC Fund was also increased. If the 1984 Protocols entered into force, the ceiling for compensation would be 135 million SDR. This would constitute the basis of the fund which will subsequently (when ratified by the US) be raised to 200 million SDR. This limit is also well below the $300 million target proposed by France, but well above the $120 million put forward by a number of delegations.

This, according to some scholars, reflected the general feeling that the existing system of compensation is grossly inadequate. A greater political goodwill was shown towards the potential victims of pollution. This demonstrates a changed climate from that prevailing at the 1969 and 1971 conferences, when industry could have an upper hand amongst those delegations which

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[84] WP.20, SR.13, p455.
[85] LEG/CONF.6/C.2/SR.13, OR 1984, Vol.2, p455-456.
[86] Democratic Republic Germany, USSR, LEG/CONF.6/C.2/SR.13, OR 1984, Vol.2, p455-456.
[87] Sweden, the Netherlands, Norway, LEG/CONF.6/C.2/SR.26, OR 1984, Vol.2, p588-589.
[88] For an analysis of the change of criterion for the shipowner to lose the right to limitation in the 1984 and CLC 1969, see Wu, C., 1996, p174-184.
[89] Document LEG/CONF.6/36, presented by the French government described the evolution of the average cost of oil spills. The document was complied by Professor Smet, H., whose work was also taken as the basis for a similar submission by the Advisory Committee on Pollution of the Sea (ACOPS) in LEG/CONF.6/58.
[90] See LEG/CONF.6/C2/WP.23, LEG/CONF.6/C2/WP.23/ADD.1.

were the most active in proposing the then emerging conventions liability.[91]

Article 6.2 of the 1984 Protocol adopted a new test for the shipowner to lose his right of limitation, being the shipowner's "personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result".

Such provision is a copy of the 1976 LLMC. One direct effect is that it has implicitly shifted the burden of proof to the claimant.[92] Some research has come to the conclusion that the 1984 provision on the test barring the right of limitation is stricter and much harder to circumvent than the 1969 provision.[93] There was also the view that such a test in the 1984 Protocol was very close to the insurance law concept of "willful misconduct" under the marine insurance policy. Consequently, it was concluded that when the owner loses his right of limitation, he also loses his liability insurance cover. The implication for the practice might be that the claimants would be discouraged from challenging the shipowner's right of limitation of liability.[94]

3. Channelling of liability

3.1 Amoco Cadiz judgment

As mentioned before, the 1984 diplomatic conference was convened one week after the judgment of Amoco Cadiz was issued. The judgment of Amoco Cadiz drew the attention to wider class of claims to be excluded from the channelling provision. (De la Rue, 1998, p97-98)

The CLC 1969 channelled liability exclusively to the tanker owner while specifically excluding the liability of the servant and agent of the owner. However, it preserved the right of recourse action of the shipowner whereby he can sue against those who actually caused the damage. In the Amoco Cadiz case, the Standard Oil as bareboat charterer was held liable. But if the US had joined the CLC/Fund regime, the Standard Oil would have had paid twice.[95] This raised the question of the particular role of a bareboat charterer in marine oil pollution compensation.

3.2 Revision of channelling

The discussion on channelling at the 1984 conference opened when Greece and Federal Republic of Germany delegations proposed to include the bareboat charterer in the definition of the shipowner. They argued that when the oil company chartered the tanker by demise, there was a chance of under-insurance. If so, it would be unjust for the country to be liable as the damage was caused due to the oil company. In this situation, the bareboat charterer and the shipowner should assume liability jointly and severally.[96]

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[91] Kbaier, R. and Sebek, V., 1985, p278.
[92] The same applied to the 1976 LLMC, and the same point was made at the 1984 Conference, see OR 1984, SR.13, p456.
[93] Wu, C., 1996, p181.
[94] Wu, C., 1996, p181.
[95] Wu, C., 1996, p170.
[96] LEG/CONF.6/C.2/WP.5.

This proposal gained support only from a few delegations, including the US, Ireland, Brazil and Poland.[97] They believed that the joint and several liability could make the life of the victims easier since they could sue either or both of the two parties till satisfaction obtained. Moreover, the aim of the Convention was not only victim compensation, but also marine environment protection. And the joint and several liability in their view would contribute to the realization of such a goal.

However, majority of the delegations were against the joint and several liability, but in favor of the channelling in stead.[98] The main arguments presented to defend the channelling include:

First, channelling can facilitate prompt compensation which is a central concept of the CLC. This was achieved by channelling the liability to the shipowner who is easily identifiable. To hold the shipowner and the bareboat charterer liable will complicate the situation for the victims and it could be better solved via contract. Thus, channelling was more effective for organizing compensation and the channelling has been working well in the last 9 years.[99]

Second, channelling could eliminate the need for other persons than the shipowner to take out insurance against oil pollution whereby to avoid overlapping insurance.[100] Moreover, it has the advantage of providing certainty for all parties involved in an incident.[101] While on the other hand, joint and several liability would lead to double insurance.[102]

Third, a major advantage of channelling according to some delegations was that it constitutes incentives for preventive measures and salvage operations.[103] As stated by the Norway delegate, channelling was an umbrella provision to protect certain type of people who were unlikely to benefit financially, particularly those taking preventive measures and salvage operation in case of a spill.[104] The ISU confirmed its preference for channelling was in the interest of victims. The salvors and others who take preventive measures should be exonerated from his liability. Otherwise the salvors might be put in a difficult situation as spillage might occur during their intervention even when they were not at fault, unless the damage was caused by personal acts or omissions, committed with intent to cause such damage.[105]

Fourth, according to these delegations, joint and several would incur heavy administrative costs. These may include the burden to issue certificates and to establish who should bear the liability and in defining the charterer.[106]

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[97] OR 1984, SR.9, p415; SR.10, p418.
[98] This includes, e.g., Sweden, Morocco, SR.1, p323-325; Italy, Sweden, France, Japan, SR.9, p415-416; Cuba, UK, China, Belgium, Germany Democratic Republic, SR.10, p417-418.
[99] UK, SR.10, p418. Central concept of CLC was not to attribute blame, but prompt compensation.
[100] CMI, SR.10, p418. According to the CMI, to impose liability on any other party would involve double insurance and costs, thus adversely affect the public interest.
[101] OCIMF, SR.11, p434.
[102] China, Belgium, SR.10, p418; the Netherlands, SR.11, p435.
[103] The Netherlands, Norway, SR.11, p435-436. Some observers held the same view. FOE and the CMI agreed that exoneration of the salvors was crucial since the salvors are the ones taking preventive measures in case of emergency. To be exonerated from liability would encourage them to take preventive measures. See SR.2, p328.
[104] SR.12, p443.
[105] SR.11, p436.
[106] Japan, SR.9, p415; Cuba, SR.10, p417.

In addition, according to some research, there was one other reason which was not explicitly advocated, being to preclude the possibility for the bareboat charterer to pay twice for the same pollution damage.[107] There were indeed some delegations who stressed the importance of the bareboat charterer to be excluded from assuming liability.

The proposal in WP.5 as a different definition for shipowner (*de facto* the joint and several liability of the shipowner and the bareboat charterer) did not gain sufficient support and was almost immediately rejected.[108] At this stage, the proponents for joint and several liability changed their attitude towards compromise. For instance, the US claimed that his delegation could accept the channelling if the liability limits of the shipowners were increased to a sufficiently high level and the subrogation right of the Fund should be protected.[109] Federal Republic Germany would agree with list channelling.[110] (Greece was more concerned with the insurance issue. He said if there were no joint and several liability, there should be other means to let relevant parties informed of the fact that the ship in question from non-contracting state is insured or not. But under the current CLC, ships of non-contracting states would not need to produce certificate in order to call a port of a contracting state.[111])

The proposal for joint and several liability was rejected by absolute majority.[112]

Although most delegations were in favor of retaining the channelling of liability as a principle, there were diverging opinions concerning the form of channelling. As shown before, in the CLC 1969, the channelling provision was simply to exclude the liability of "the servants or agents of the owner".[113] The draft Protocol proposed by the Legal Committee in 1984 tried to amend the CLC 1969 by adding a list of parties to be excluded from assuming liability, in addition to the original servants or agents of the shipowner, including pilot or crew, charterer, salvor, any person taking preventive measures and servants or agents of any of these persons.[114] Some delegations raised doubts concerning this approach. UK, France and Greece were against formulating such a list of parties to be exempted.[115] The UK was concerned that such a list might have the disadvantage of not being exhaustive,[116] and the France considered such a list to be excessive.[117] The ICS found it questionable to list third parties against which direct action could not be taken. Moreover, the limit could be contested and not exhaustive. (e) in the draft was too broad and vague category.[118] However, UK considered the salvor should be added in addition to the 1969 provision,[119] while Greece considered the pilot and crew should be added.[120]

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[107] Wu, C., 1996, p170.
[108] The proposal on joint and several liability in WP.5 was rejected by 34 against 8. SR.10, p418.
[109] OR 1984, SR.11, p434.
[110] SR.11, p436.
[111] SR.10, p418.
[112] SR.11, p437. WP.5 was rejected by 36 to 5 with 2 abstentions.
[113] Article III.4 of the CLC 1969.
[114] OR 1984, Vol.1, LEG/CONF.6/4, p60.
[115] SR.11, p434-435. In addition, Bahamas was also against such a list. SR.10, p418.
[116] SR.11, p434; SR.12, p443.
[117] SR.11, p435.
[118] SR.11, p436.
[119] SR.11, p434.
[120] SR.11, p435.

The majority of the Committee, however, was in favor of the draft of the Legal Committee which included the list of parties to be exonerated.[121] Their argument was the list could reinforce the concept of channelling and make it more explicit and clearer.[122] Some delegation, in particular, Morocco stressed the importance of excluding the liability of the bareboat charterer.[123]

It should be mentioned, some delegations made a statement that the channelling was closely related to the limitation amount. They considered that channelling was justified when the liability limits of the shipowner were substantially increased to a high level.[124]

Thus, despite some diverging opinion not to add such a list, the list as proposed by the Legal Committee was finally agreed upon.[125]

3.3 Evaluation

The channelling provision adopted in the 1984 Protocol does not preclude the possibility of recourse action of the shipowner. As a result, the persons intended to be protected by this provision may still be pursued by the shipowner under general tort law. Thus, there is an opinion that the persons protected by the channelling, in the absence of willful misconduct, would not be primarily liable towards claimants, but could be secondarily liable to the shipowner in a recourse action.[126]

This channelling was heavily criticized mainly due to the immunity granted to the charterers. Channelling was considered to be justified in the case of maritime transport of nuclear materials as it was monitored by the State. However, such a monitoring was lacking in other area of maritime matters.[127]

One may link the strengthened channelling provision with the judgment of the Amoco Cadiz which imposed joint and several liability on the shipowner, operator and the parent company. The majority of the delegations believed that the victims of pollution would be facilitated in their action whilst no persons other than the shipowner would have to seek insurance against pollution damage.[128] The final text of the 1984 Protocols as adopted at the conference confirmed this trend, and the liability remained channelled solely to the shipowner. (Article 4.1)

Originally under the CLC 1969, it was only “the servants or agents of the owner” were specifically exempted. The 1984 Protocol added another party to be exonerated, being “the members of the crew” in addition to the servants or agents of the owner. The origin of the

[121] For instance, Democratic Republic of Germany, Sweden, Japan, Italy, India, Belgium, USSR, the Netherlands, SR.11, p434-436;
[122] Canada, SR.11, p433; Democratic Republic of Germany, SR.11, p434.
[123] SR.1, p325.
[124] Canada, SR.9, p416; France, SR.11, p435; US, UK, SR.11, p434.
[125] The proposal in WP.5 was rejected by 36 to 5 with 2 abstentions; the proposal from the Legal Committee was approved by 29 to 13 with 5 abstentions. SR.11, p437.
[126] Wu, C., 1996, p171.
[127] Wu, C., 1996, p172-174.
[128] LEG/48/6, para.s 89-107.

extension of this provision was the concern of such bodies as the International Labour Office not to make too onerous the liability of persons unable to secure adequate insurance. It might be possible to argue that this amendment, relating to "members of the crew", duplicates the concept of "servants or agents of the owner".[129] After all, in the Amoco Cadiz judgment, Judge McGarr pointed out that "the terms mandataires and preposes were intended to refer to and to immunize the master and crew of a vessel, individuals who would be unable to bear the financial expense of liability and who it would therefore be futile and unfair to sue…"[130] the qualifying clause might then have been inserted into the 1984 Protocol either to remove any ambiguity whatsoever that the master and crew were exonerated, or possibly to attribute a somewhat different meaning to the concepts of servants and agents.

It should also be noted that a tug or any vessel engaged in salvage is exonerated only if it acts with the consent of the owner of a competent authority. This answers the question posed by the late intervention of the tug in the grounding of the Amoco Cadiz. It is hoped that this provision will not present an obstacle to a quick response by tugboats or other vessels taking part in salvage operations; it is therefore fortunate that instructions given by public authorities entail exoneration.[131]

Another innovate provision with respect to the channelling is Article 4 (c) which stipulates that "any charterer (howsoever described, including bareboat charterer), manager or operator of the ship" are to be exempted. This provision was inserted following long debates between those who supported the absolute channelling of liability on the owner and those who favored a joint liability of the owner and the bareboat charterer. The former argued that it was not desirable to complicate the definition of the owner by including within it the bareboat charterer. This would not be, according to them, in the best interest of potential victims of pollution. The latter, taking into account the interest of the bareboat charterer, pointed out that if the joint liability of the owner and the bareboat charterer did not exist, legal proceedings against the bareboat charterer could be instituted outside the conventional framework.[132]

4. Extension of scope of application

4.1 Incident and preventive measures

4.1.1 Incident

Considering the fact that the CLC 1969 did not cover preventive measures when there is no actual discharge of oil, in the light of almost 10 years experience with the application of the Convention that such a provision discouraged the taking of preventive measures, the Legal Committee decided to add the situation where there is no actual spill but only "threat" of spill into the "incident" covered under the Convention.

[129] Kbaier, R. and Sebek, V., 1985, p274.
[130] The judgment of 18 April 1984, p102.
[131] Kbaier, R. and Sebek, V., 1985, p275.
[132] Kbaier, R. and Sebek, V., 1985, p275.

The opinions of the delegations divided among three groups. One group represented by US and New Zealand who believed that there should be no restriction of "grave and imminent" for the incident, since it would deter government from taking necessary action until it was too late.[133] Another group represented by Canada, France preferred the wording of "serious" threat. They believed that "grave and imminent" was too restrictive as they only took account of threats which would materialize in the very near future. However, the threat could be a long term threat.[134] A third group seems to be majority group who considered "grave and imminent" necessary to stress the urgent character of the situation.[135] This was the finally adopted definition.[136]

4.1.2 Special treatment for preventive measures

In Article 5 bis of the 1984 Protocol draft (Art.4.3 of Fund Convention 1971), the Legal Committee proposed some special treatment for the preventive measures, being generally the Fund would be exonerated from compensation to the extent that the pollution damage was caused by the victims, however, the Fund would not be exonerated with regard to preventive measures.

The delegations generally agreed that the special treatment for preventive measures was needed as it could encourage the taking of such actions.[137] However, the question remained if it should only be preventive measures taken by the shipowner or any party. The Netherlands considered it should be preventive measures taken by the shipowner, UK was in favor of a narrower qualification and wider provision in his view could lead to confusion as to what the Fund did or did not have to cover.[138] On the other hand, some delegations expressed the view whoever has taken such measures should be compensated.[139] France argued that there should not be distinction between the preventive measures taken by the shipowner and those taken by other persons. No one should be discouraged from taking preventive measures since it is in the interest of the victims.[140] Lots of delegations considered that as long as the costs are reasonable, it does not matter who takes the preventive measures, either private parties or authorities, either shipowners or other parties.[141] Hence, it was decided to include all preventive measures.[142]

4.1.3 Evaluation

The Fund under the 1984 Protocol would pay the costs of preventive measures even the persons

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[133] SR.1, p317, 323. New Zealand later changed his position to "serious" threat of oil discharge, see SR.17, p505.
[134] See p507. Other delegations that preferred this wording included Federal Republic Germany, SR.17, p505; Turkey, Malaysia, Ghana and FOE, see SR.18, p507.
[135] The word "grave and imminent" was proposed by CMI in LEG/CONF.6/39. Supporters for this wording include Brazil, Greece, Bahamas, Italy, China, USSR, Japan and Chile, see SR.18, p507.
[136] This was decided by show of hands, and the result was 32 for "grave and imminent", 15 for "serious". See SR.18, p508.
[137] Japan, UK, France, China, p498; Denmark, p542
[138] P498. However, the Netherlands almost immediately withdrew, see p499. UK, p542.
[139] Fund, p498; Denmark, France, p542.
[140] P543.
[141] Finland, Denmark, France, Canada, US, Ghana, Brazil, Italy, see p543-544.
[142] SR.22, vote 30: 8 with 10 abstentions, approved the sentence in [] to include all preventive measures, p546.

taking preventive measures causing damage due to their negligence or intent. This special treatment of preventive measures reflected the increasing concern of states to encourage taking of these measures. Thus the general rule of contributory negligence does not apply to preventive measures, but only to pollution damage as such.[143]

4.2 Definition of pollution damage

4.2.1 Debate on the new definition

The definition in the CLC 1969 on "pollution damage" was normally subject to the interpretations of the national law of individual states that implements such convention.[144] It was often criticized to be too vague.

At the 1984 conference, lots of delegations raised the concern that the definition of "pollution damage" as defined in the 1969/1971 Conventions should be revised to clarify what types of damages are included so that different interpretations by national courts could be avoided.[145] On the other hand, there were also delegations who insisted on maintaining the original definition in the CLC 1969.[146] Their major argument was that these two conventions have been working for years and they should not be overturned easily or at least should not be deviated too far from.[147]

There were several proposals which drew the most attention. A first one was the Legal Committee proposal. It defined the pollution damage to mean:
"(a) costs actually incurred as a direct result of contamination outside the ship resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur;
(b) economic loss actually sustained as a direct result of contamination as wet out in (a);
(c) actual costs of preventive measures and economic loss actually sustained as a direct result of such preventive measures."[148]

This was supported by delegations such as Gabon, China, Venezuela and Peru, although it was not completely satisfactory. P356-357 observers like ICS also preferred such a definition. P348

The idea behind the CMI proposal was to allow for economic loss while excluding speculative claims by using words such as "actual" to modify "costs" and "direct" to limit the scope of "economic loss".[149] The CMI proposal did not explicitly exclude damages to the marine environment but did not expressly mention them. These were considered to be covered by the

[143] Wu, C., 1996, p187.
[144] Silverstone, D., Ship Source Oil Pollution Damage: A Canadian Perspective on Recoverability of Economic Losses and Damage to the Marine Environment, Marine Policy, 1985, Vol. 9, p114.
[145] Federal Republic of Germany: The experience had shown the need for further clarification of the concept of pollution damage, p347-348; ICS, p348; Germany Democratic Republic, p351; Sweden, p353; Fund, p355; Italy, Netherlands, p356; FOE, p357, should avoid national courts interpretation, p357.
[146] France, the existing definition was quite adequate. P349. Trinidad and Tobago: preferred 1969 definition as it has been in use for years and gave rise to a body of case law which should not be overturned without justification, p352-353; Canada, Morocco, Japan, Gabon, Chile, p354-356.
[147] Trinidad and Tobago, SR.4, p352-353. Canada, Morocco, Japan, Chile, France, p354-357.
[148] LEG/CONF.6/4, p58.
[149] LEG/CONF.6/39, CMI Submission, p3-4.

terminology dealing with economic loss generally.[150] This was supported by Italy, Greece.[151]

Second, there was a combination of proposal by the German Democratic Republic and the Federal Republic of Germany, put together by the Polish delegation.[152] This proposal provided for specific inclusion of both economic losses and damage to the marine environment, specifically restoration costs. In addition, the French delegation submitted an alternative which referred generally to "costs reasonably incurred" without any reference to either economic losses or to damage to the marine environment.[153]

Third, there was the UK proposal. The UK would favour a more precise definition of pollution damage, but was concerned if this were to eliminate types of claims which are generally accepted as legitimate at present. The UK thus proposed to add a proviso to Article III.1 "Provided that compensation for reinstatement of the environment shall not exceed the costs of reasonable measures actually undertaken or to be undertaken". It gained substantial approval during the discussion. This proposal was not as specific as the CMI definition. Silverstone observed that it was identical to the definition in the CLC 1969 except for a proviso which made specific reference to damage to the marine environment and which limited the scope of recovery for such damages to "costs of reasonable measures of reinstatement actually undertaken or to be undertaken".[154]

As for the revision of the definition, concern was raised that it should exclude speculative and arbitrary claims based on theoretical modals.[155] German DR was concerned with loss of use as a direct result of marine pollution for fishermen and others working in the marine environment.[156] Given importance of tourism in Bahamas, he wanted to be sure compensation claims reasonably attributable to a pollution incident would be accepted. Rejection of speculative claims was a matter of principle. …[157] Belgium raised the difficulty in estimating the losses suffered by the tourism industry or fishermen following an incident.[158]

At the same time, it was proposed that the new definition should cover as broad as possible damage suffered, including the ecological damage and the restoration of the marine environment.[159] However, how to evaluate environmental damage remained a difficult task. Indeed the environmental aspect was not taken into account in the 1969 definition and had now become one of the major concerns with respect to the definition of pollution damage.[160] Bahamas considered it wrong to equate pollution damage with costs actually incurred since it made extravagant costs to be recoverable. Preferred defined as actual loss such as could be

[150] LEG/50/4/10, see Silverstone, D., 1985, p114.
[151] P320-321.
[152] LEG/CONF.6/7, LEG/CONF.6/17, LEG/CONF.6/25
[153] Silverstone, D., 1985, p114-115.
[154] Silverstone, D., 1985, p115-116.
[155] Federal Republic of Germany, Belgium, Bahamas, Sweden, p347-357.
[156] SR.4, p351-352.
[157] P353,
[158] SR.4, p352.
[159] FR Germany believed the reasonable costs in restoring the marine environment should also be compensated. SR.3, p347-348. Poland also expressed the same view in LEG/CONF.6/25, see SR.3, p348.UK, p348-349.
[160] France: the definition should include environmental damage. P319; US, p357; ACOPS, p358.

reasonably quantified.[161]

Moreover, Federal Republic of German delegation raised the issue that the expected costs, being estimates of future costs of reparation which had not yet materialized, but were reasonably expected to be incurred by the claimant should also be compensated.[162] Sweden: The cost of restoring the marine environment compensable was important to Sweden.[163] FRG was supported by ACOPS, Ireland, the cost to restore marine environment should be compensated.[164]

No agreement could be reached on the definition of pollution damage. There was far from universal acceptance of the Legal Committee draft and even among those who agreed with it in principle, it was felt there was still room for improvement. (SR.3) objections were made to specific wording which was said not to reflect the legal concepts of particular jurisdictions.[165] Several countries continued to express the view that the definition should not be changed.

Because of the wide divergence of views, it was proposed that a working group should be formed to deal with the issue. The Working Group met to crystallize the differences of opinions. Basically, the disagreement with the legal committee text revolved around several matters, in particular, the use of the word "costs" to define losses, the word "direct" to modify "result of contamination", the word "actually" to modify the terms "incurred" and "sustained", the reference to costs "to be incurred" in reference to costs of "reinstatement of the environment" and the use of the term "economic loss".[166]

In its report, the working group provided two alternatives.[167] Alternative I defined pollution damage to mean:
"(a) reasonable costs actually incurred or to be incurred, and other damage or loss, including loss of profit, actually sustained as a direct result of contamination outside the ship resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur; provided that compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken;
(b) reasonable costs of preventive measures and damage or loss actually sustained as a direct result of such preventive measures."

Alternative II defined pollution damage to mean:
"(a) loss or damage caused outside the ship carrying oil by contamination resulting from the escape or discharge of oil from the ship, wherever such escape or discharge may occur; provided that compensation for impairment of the environment other than loss of profit from such

[161] SR.4, p353.
[162] SR.3, p347-348. Poland: costs of restoring the marine environment as it stressed fundamental importance of protection of marine life. P354
[163] P353.
[164] P358-359.
[165] Norway, for example, objected to the use of the word "costs" to define "losses", stating that this was limitative and did not conform to the legal systems of continental Europe. (From Silverstone, D., 1985, p115, fn89).
[166] Silverstone, D., 1985, p116-117.
[167] LEG/CONF.6/C.2/2, OR 1984, Vol.2, p187-188.

impairment shall be limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken;
(b) the costs of preventive measures and further loss or damage caused by preventive measures."

Hence, in the WG report two alternatives: first more detailed description of damage and loss, was based on Article 2.3 of the draft protocol; second was more general formulation based on Article 1.6 of the present CLC with added clarifications. German Democratic Republic pointed out that the WG had agreed on principle that damage should include economic loss as a consequence of loss of use as well as const of restoration, and the definition should exclude speculative claims.[168] It should be noted that the Fund was helping in the Working Group's work, so the WG actually based its work on the experience of the Fund which had paid compensation for persons earning their living directly from tourism, e.g. hoteliers and restaurant owners, but excluding those not directly dependent on such activities.[169] Another concern was that the definition should not deviate too far from the existing definition. Alternative II gained majority support.[170]

Whether the measures of restoration "to be undertaken" should be compensated caused most controversy. Some delegations believed to include this would leave the possibility for speculative claims open,[171] while some considered it important to take account of the difficulties by victims who had not means to restore the environment without some prior financial assistance from the Fund or compensation from the shipowner.[172]

As a result, the alternative II was adopted with a slight majority and the word "to be undertaken" was decided to be included as well.[173]

4.2.2 Assessment of the new definition

The new definition was considered a compromise between the original definition under the CLC 1969 and the more complex one suggested by the CMI.

The wording in the CLC 1969 covered economic losses connected with personal injury or property damage, the absence of any reference to environmental damage left this aspect to the interpretation of national courts according to domestic implementation of the convention.[174] Delegations expressed concerns at the 1984 conference that some liberal court rulings on damage would destabilize the regime's uniformity of application.

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[168] P476.
[169] P488.
[170] The delegations supported Alternative I included the CMI, Japan, Greece, Bahamas, p478-483; see also Canada, Belgium, Italy, US, Indonesia, Nigeria, China, Netherlands, Ghana, INTERTANKO, p486-491; those supported Alternative II included Poland, the International Group of P&I Clubs, France, Congo, Brazil, UK, Sweden, FRG, Trinidad and Tobago, India, p476-483; Turkey, Gabon, Argentina, Peru, New Zealand, Finland, Cuba, FOE, France, p486-491.
[171]
[172] UK, US, Fund, p487.
[173] Result of the indicative vote, Alternative I: II – 19:28 (1 abstention), p491. After Alternative II had been approved, the word "to be undertaken" was put on vote, and it was adopted by 32:10 (3 abstentions), see p491. later the decision on Alternative II was confirmed by show of hands: 35:0(3), SR.17, p493-494.
[174] Wetterstein, P., Trends in Maritime Environmental Impairment Liability, Lloyd's Maritime and Commercial Law Quarterly, 1994, p234.

Hence, based on the experience with the 1971 Fund, a new definition for pollution damage was adopted. The claims for environmental damage were extended beyond loss of profit and reasonable measures of reinstatement, this would rule out (as it was planned0 claims for environmental damage *per se*.[175] "Loss of profit" under Article I(6) was agreed to encompass not only consequential loss claims (loss of earnings by owners/users of property contaminated by oil) but also claims for pure economic loss (loss of earnings suffered by parties whose property has not been damaged, e.g. coastal hoteliers, fishery concerns). This was considered an extension of liability norms beyond their traditional restriction to property damage.[176] However, the "reasonable measure of reinstatement" failed to prevent subsequent inter-state disputes as to the application of the oil pollution liability regime to ecological damage. Disagreements in practice can be highlighted over quantification of damage, the state as environmental trustee and ecological restoration. (See detail, p3-5)

As a result of long debate and negotiations, the protection of the marine environment *per se* was not accepted in the 1984 Protocols. However, there was a change to the cost of damage which was considered a significant step forward. The only reference to environmental damage is thus made indirectly in the context of the measures taken to restore the marine environment in *status quo ante*, and also in the provision that the costs incurred should be reasonable.

This obviously does not correspond to the aspirations of the environmentalists who were hoping for a broader concept of damages to be accepted in the new text. On the other hand, many delegations pointed out that nothing agreed at the conference should stop the natural evolution of the concept of damage. One of the most frequently quoted arguments against the acceptance of environmental damage per se was the lack of any reasonable and generally accepted economic and mathematical model which would enable those concerned to translate into monetary terms the value of a clean environment. It appears nevertheless that the currently available rudimentary and manifestly deficient theories will continue to develop and become increasingly sophisticated and refined through the court practices of important maritime states.[177]

The new definition of pollution damage preserved the original wording but added a condition respecting damage to the environment. Silverstone held the view that the new definition actually allows for recovery for pure economic loss. According to her, by excluding loss of profits from the limitation regarding recovery for damages to the marine environment, it can be implied that loss of profits (which is an example of pure economic loss)is with respect to damages to the marine environment and by extension to all other damages, fully recoverable under the general words "loss or damage".[178]

The definition of pollution damage was considered important since it could influence the attitude

[175] Gothard.Gauci, 1997, p55-56.
[176] Mason, M., 2003, p3.
[177] The Cost of Oil Spills, Expert Studies presented to the OECD Seminar on Economic Consequences of Oil Spills, OECD, 1992.
[178] Silverstone, D., 1985, p118-119.

of the major contributors to the Fund towards ratification of the 1984 Protocols.[179]

5. Relief to the shipowner (roll-back or indemnification function)

5.1 Deletion of the Fund's secondary function

The 1971 Fund was assigned with two functions, providing adequate compensation to pollution victims and to relieve the shipowner from additional financial burden imposed by the CLC 1969. The responsibility of the member states were heavier in the sense that they have to pay compensation if damage was caused due to their failure to provide information on the contributing oil.

Already during the discussion on the increase of compensation amount, the secondary function of the Fund was questioned.[180] When the topic was formally put into discussion, the delegations almost unanimously agreed to delete the relief (also referred to as the roll-back) function of the Fund.[181] It was considered that the function of the Fund to provide relief to the shipowner was no longer justified,[182] and moreover, the deletion of such function could simplify the liability system.[183] However, some delegations also pointed out that the Fund should not be changed in a radical way to upset the previous balance between the shipowner and the oil industry.[184] Some delegations stressed the link with the limitation amount.[185] For instance, the CMI considered that the issue on the secondary function of the Fund could not be decided before the limitation amount was decided.[186] Some delegations said that if the relief function was deleted, when calculating the limitation of liability, this should be taken into account.[187]

5.2 Role of the state

The Legal Committee proposed in its draft protocol that when a contracting state did not fulfill its obligation to submit the communication on the names and addresses of persons receiving contributing oil within their territory and this resulted in financial loss, then this contracting state should be held liable to compensate the Fund for such loss.[188]

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[179] Silverstone, D., 1985, p109.
[180] For instance, UK, Federal Republic of Germany, INTERTANKO, Finland, USSR and Sweden all expressed the wish to delete the relief function. See SR.5, p373; SR.6, p373, 376, 378, 380, 382, and SR.8, p403.
[181] See again, UK, Canada, Federal Republic of Germany, INTERTANKO, China, Denmark, Australia, Greece, UK, Italy, France, Bahamas, ICS, SR.18, p512-513.
[182] Canada, Federal Republic of Germany, Denmark, Australia, Greece, UK, Italy, France, Bahamas, ICS SR.18, p512.
[183] INTERTANKO, SR.6, p378; USSR, p381-382.
[184] Federal Republic of Germany, SR.6, p376.
[185] Denmark, Australia, Greece, UK, Italy, France, Bahamas, ICS. SR.18, p512.
China: If it was deleted, the shipowner would have difficulty if the limitation under the CLC were set too high. P512
[186] SR.18, p512.
[187] USSR, p381-382; INTERTANKO, p512. CMI: only when the limitation amount was decided, the issue on the secondary function of the Fund could be decided as the relief is closely linked to the limitation amount. SR.18, p512.
[188] LEG/CONF.6/5, OR 1984, Vol.1, p84, this was provided in the added paragraph 4 of Article 15 of the Fund Convention Protocol. It reads "When a Contracting State does not fulfill its obligations to submit to the Director the communication… and this results in a financial loss for the Fund, this Contracting State shall be liable to the Fund for compensation of such loss. The Assembly shall, on the recommendation of the Director, decide whether

As explained by the Director of the Fund based on its experience of years' operation, when contracting states were not obliged to finance the Fund but only to communicate to it the names and addresses of persons receiving contributing oil within their territory, it happened often that the relevant information was communicated too late. The reports had to be submitted as of 31 March each year, by that date it only received 20 to 30% of the reports on which the evaluations were to be based. When the contributions had to be calculated, some reports were often still not yet available and contributions had therefore to be based on estimates and some invoices could only be sent out with considerable delay. Such delays represented considerable sums in lost interest to the Fund; this loss of income had to be compensated by an increase in the sums paid by companies contributing to the Fund. The added para.4 was aimed at accelerating the process.[189]

Morocco was almost the only state (at least from the official record) who raised objection against such provision.[190] The argument put forward by the Fund was obviously so convincing that this imposition of liability on the state in case of loss caused due to its communication problem was approved easily without too much debate.[191]

It seems the responsibility of the state was strengthened under the 1984 Protocols.

5.3 Evaluation

It is interesting to notice that the function of the Fund to provide indemnity to the shipowner was strongly urged by majority of the delegations at the 1971 conference preceding the Fund Convention 1971, whereas the deletion of such a function did not encounter so many objections in 1984. Some delegations pointed out that the relief function of the Fund was closely related to the level of liability limits. In 1971, this secondary function of the Fund was considered necessary as the liability of the shipowner was radically increased (compared with the 1957 Limitation Convention) through the CLC 1969. The situation was different in 1984. As argued by some, when the two Conventions were revised at the same time, the relief of the shipowner provided by the Fund was not necessary any more. It was not only the relief was not justified, but also the omission of such a function would simplify the compensation regime as a whole.[192]

The result of such a deletion was actually an increase of the amount of shipowner's liability.[193] (This should be taken into account when evaluating the actual increase of shipowner's liability limits.)

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such compensation shall be payable by a Contracting State."

[189] SR.20, p532-533.

[190] SR.1, p325.

[191] SR.27, p607.

[192] OR 1984, LEG/CONF.6/7, p171; LEG/CONF.6/30.

[193] SR.18, p512. INTERTANKO noted that it was an important concession on the part of the shipowners.

6. Influence of the 1984 Protocols

The attitude of the oil companies at the 1984 conference was that they paid too much of the total oil pollution bill, and that their contribution should only occur in real disaster cases, the rest being compensated entirely by the shipowners under the CLC. This might be one of the reasons that led to the readjustment of the burdens between the shipping and the oil industries.[194]

From the above analysis, one can see the major amendments made to the 1969/1971 system in the 1984 Protocols concerned the increase of compensation amount from both the CLC and the Fund Convention, the more explicit channelling, and the extension of scope of compensation. The 1984 Protocols have considerably increased the amount of compensation while maintaining the principle of cost sharing between the two major industries involved. In return for the substantial increase of compensation, the 1984 CLC offered the shipowner a stronger right to limit his liability. The formal declared goal of such amendment was to make the system more favorable for the victims. However, the change in the channelling provision was also an attempt to make the Conventions the sole arena where the problems related to oil pollution should be resolved.[195]

Decisions taken on the definition of pollution damage etc. could influence the attitude of the major contributors to the Fund towards ratification of the 1984 Protocols.[196]

The 1984 Protocols adopted significant increases in the liability of the shipowner, although it was linked to a narrowing of the conditions under which the shipowner could lose their right to limit liability, which was considered a significant concession to the shipping interest.[197]

Concerns were also expressed at the 1984 conference about a growing number of substantial claims for environmental damage compensation allowed by national courts under the international liability regime.[198] The delegations identified a convergence of flag state (shipping) and coastal state (environmental protection) interests in redefining the parameters of liability for oil pollution damage to standardize cover of transnational environmental harm. The agreed amendments featured the explicit inclusion of environmental impairment as constitutive of pollution damage under the CLC and the extension of the geographical scope of both Conventions beyond the territorial seas to EEZ and the costs of measures wherever taken to prevent damage to their national maritime areas.[199]

There has been study which applied the compensation under the 1984 Protocols to approximately 1700 oil spills during the period between 1970 and 1982. The findings were that the share of the total oil pollution costs born by the shipowner would have arisen from 47% to 68%.[200] The shipowners opposed altering the existing balance between the shipping and the oil cargo interests arguing that the freights were considerably low. From the shipowners' perspective, the burden on

[194] Abecassis, D., 1983, p51.
[195] Wu, C., 1996, p190.
[196] Silverstone, D., 1985, p109.
[197] Mason, M., 2003, p2.
[198] Wetterstein, P., 1994, p475-483.
[199] Mason, M., 2003, p2.
[200] Abecassis, D. and Jarashow, R. L., Oil Pollution from Ships, 1985.

oil cargo owners could be alleviated by reducing the share of the contributions each faces if more countries would ratify the Fund Convention.[201]

The 1984 conference was criticized for being not so revolutionary in dealing with the notion of liability. It was considered to be the shadow of the Amoco Cadiz decision that loomed large at the conference, although the majority of representatives were more than discreet about the decision. One of the issues which provoked particularly contentious debate was precisely that of the channelling of liability.[202]

7. Failures of the 1984 Protocols

In an effort to induce the US participation, the 1984 Protocols broadened the scope of geographical application and the recoverable damages, and substantially raised the liability limits of the conventions.[203] Japan, as the largest contributor to the Fund at the time, felt that the Japanese oil industry had carried a disproportionately large financial burden of contribution under the Fund Convention, and the Japanese government was reluctant to ratify the 1984 Protocols in the absence of an offer by the US to share the financial burden.[204] Japanese oil receivers had paid contributions of £ 20 million in total while £ 5 million had been paid out in compensation for damages caused in Japanese territory for the first 12 years since the establishment of the IOPC Fund.[205]

The 1984 Protocols required to be ratified by at least 10 states and at least 6 of which had a tanker fleet of over 1 million tonnes. By June 1990, only 6 states had ratified the 1984 CLC[206] and of these only one state France had tanker tonnage of over one million tonnes. The 1984 Fund Protocol required ratification by at least 8 states with a total contributing oil import of at least 600 million tonnes. By June 1990 it has been ratified only France and Germany which had combined imports of only 164 million tonnes.[207]

The entry into force conditions in the 1984 Protocols were laid down in such a way that the Protocols could come into force only when the US ratified it. The United States is one of the largest oil consumers in the world and one of the major shipping nations. Therefore its participation would have greatly changed the situation of the international system, especially from a financial point of view - the United States would have been the most important contributor to the Fund. Approval of the US would have helped to establish a uniform international oil pollution liability regime. However, the actual situation in the US was that many

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[201] Abecassis, D., 1983, p46-52.
[202] Kbaier, R. and Sebek, V., 1985, p274.
[203] Hawkes, S. and M'Gronigle, M., A Black (and Rising?) Tide Controlling Maritime Oil Pollution in Canada, Osgoode Hall Law Journal, 1992, 30, p165-227.
[204] Kim, I., 2003, p267.
[205] Goransson, M., The 1984 and 1992 Protocols to the Civil Liability Convention, 1969 and the Fund Convention, 1971, in: De la Rue, C. (ed.), Liability for Damage to the Marine Environment, Lloyd's of London Press, 1993, p71-82.
[206] The 6 states are Australia, France, Germany, Peru, Saint Vincent and the Grenadines, and South Africa. The UK had cleared the way for ratification by transposing the provisions of the 1984 Protocol in the Merchant Shipping Act 1988, but had not ratified. 19 other states had tanker tonnage over 1 million tonnes but had not ratified.
[207] Wilkinson, D., 1993, p77.

individual states had adopted their own legislation on oil pollution liability. There were also debate concerning the possibility for the US government to join the international regime and abandon the existing state legislation, or to adopt a comprehensive federal legislation whereby maintaining the state legislation can be realized. Such political debates started since the negotiation of the international regime had begun. However, when the Exxon Valdez incident happened in Alaska in 1989, under the pressure of public awareness of the dramatic damage caused by oil pollution incident, the US government ended the political debate quickly with the adoption of the Oil Pollution Act 1990. The OPA contains provisions on the compensation regime and the liability system which are incompatible with the international regime as far as some important principle issues are concerned.[208] The strength of environmentalist sentiment in the aftermath of the Exxon Valdez incident is evident in the comprehensive liability provisions of the OPA which imposes stronger duties of care on the shipowners than the CLC 1969, and includes a right of action against operators. In contrast to moves to strengthen limited liability defenses under the CLC 1984 Protocol, OPA shifts the burden of accountability towards the harm producer, e.g. incident related failures in reporting, cooperation and compliance can all leave a responsible party facing unlimited liability for damage. Moreover, the international oil pollution compensation regime was faced with critics on its ecological remediation provisions and the OPA adopted stronger provisions in this respect, which may in turn render the 1984 Protocols less effective in compensating affected environmental interest.[209] Hence, the adoption of national legislation of OPA has closed the door for the US to join the international regime and as a result, the 1984 Protocols could never come into force.

III. The 1992 Conventions

1. Adoption of the 1992 Conventions

The refusal of the US to take part in the international regime led to the failure of the 1984 Protocols. However, the practice with the international regime has proved that the changes agreed in the 1984 Protocols (particularly the increase in compensation amounts) were urgently needed. The 1969/1971 system had encountered many problems during the years' application. In addition to the problem of insufficient compensation, two other problems are intrinsic to the international system: firstly, the refusal by the IOPC Fund to cover environmental damage; secondly, the lack of effective sanctions to the pollution prevention system. Moreover, there was a growing sentiment, especially among the European states party to the Fund Convention, that something had to be done to bring the substance of those instruments into force in order to keep the international system up to date and to avoid the threat of further regional schemes like the one adopted by the US. France played an important role in the revision process because it had suffered the greatest exposure to the risks of oil spills. The need for change was further demonstrated by the Exxon Valdez incident in 1989.

Another diplomatic conference was thus organized and representatives of 55 states met in London from 22 November to 7 December 1992 to consider the draft protocols of the

[208] Popp, A., Oil Spills-Who Pays for them and How much? An overview of the International Compensation System, 2002.
[209] Mason, M., 2003, p3.

international oil pollution compensation regime.

In 1991, realizing that the 1984 Protocols were unlikely to be ratified by sufficient states to come into force in their present form, the Fund Assembly set up a Working Group to consider the future development of the international oil pollution compensation regime. The Working Group concluded that the primary goal now was to expedite entry into force of the substance of the 1984 Protocols, including the revised liability limits, and that this could be best achieved by simply amending the entry into force provisions alone. The proposals of the WG were considered by the Legal Committee in May 1992 which approved draft protocols largely identical in terms to the 1984 Protocols except for their entry into force requirements.[210]

Realizing that there was no prospect for the 1984 Protocols to enter into force in the foreseeable future, and acknowledging the need to ensure the continued viability of the 1969/1971 regime through the amendments introduced in the 1984 Protocols, the 1992 conference limited its revision in principle to the entry into force provisions. "The only substantive issue that the Conference has been requested to address is whether there should be introduced an upper limit, referred to as a cap, on the aggregate amount of contributions to the IOPC Fund payable by any State for a given period." The highest priority was decided to be "on the effective implementation of the instruments and regulations adopted by the IMO and under its auspices." "For this reason the greatest emphasis has been given to measure to promote and facilitate the entry into force and widest possible acceptance of the treaty and other international instruments developed within IMO."[211]

The Japanese delegation raised the issue of a cap on contribution from one state. Japan wanted to cap the contributions payable by a single member state at 25% because it felt that its oil industry had borne an excessively large share of the total contributions levied under the previous Fund. According to the report of the Fund, the contributing oil in 1991from states party to the 1971 Fund were as follows: Japan has 266.4 million contributing oil, Italy (in 1990) had 144.1 million contributing oil, among the 973.2 million contributing oil.[212]

It was probably because Japan had been the largest contributing state to the Fund, the Japanese proposal to cap contributions from one single state was accepted by the Fund Working Group in its draft Fund Protocol, although it did not specify what the proportion from one state should be.[213] The Committee of the Whole decided to amend the figure 25% to 27.5%.[214] Finally, the cap was decided to be 27.5% in the Resolution.[215] over the opposition of many states.[216] They

[210] LEG/CONF.9/3, 20 May 1992, Consideration of a Draft Protocol to the International Convention on Civil Liability for Oil Pollution Damage, 1969, Vol.4, p44-45. See also Wilkinson, D., 1993, p78.
[211] LEG/CONF.9/RD/1, Annex 1, Opening Statement by Mr. O'Neil, Secretary-General of the International Maritime Organization, 23 November 1992, Vol.4, p149-151.
[212] LEG/CONF.9/10, Vol.4, p88.
[213] LEG/CONF.9/4/1, Vol.4, p78.
[214] LEG/CONF.9/CW/6, LEG/CONF.9/CW/7
[215] LEG/CONF.9/17, Resolution 5, p142.
[216] According to the Resolution 5 adopted in the 1992 International Conference on the Revision of the CLC 1969 and the Fund Convention 1971 convened by IMO in London from 23 to 27 November 1992, an interim cap on contributions payable by oil receivers in any given state was introduced considering the need for a wide ratification of the 1992 Protocol to the Fund Convention 1971 so as to ensure a reasonable distribution of the financial burden imposed on oil receivers in the contracting states to that Protocol, and the importance of

feared the possible distortion of competition among the companies in member states because a cap by state would confer advantages on Japanese companies relative to those in other states.[217]

(It should be remembered that during the preparation for the 1984 conference, it was pointed out based on the contributory standard in the Fund Convention 1971, which is simply based on the amount of oil imported, lots of states with low amount of oil import did not have to contribute at all. The US proposed that an interim ceiling on contribution of 25% of total contributions for any one state.)

Italy raised the issue that the environmental damage was not recognized in the definition. He argued that the occurrence of major maritime disasters pertaining to petrol tank traffic, as in the most recent cases of the Haven and the Agip Abruzzo, called for immediate acceptance of compensation for the damage inflicted on the marine environment. "In consideration of the widely acknowledged difficulties in quantifying environmental damage, Italy declares its favor for the recognition of the damage also in terms of fair remuneration according to prior understandings between the parties."[218] He thus proposed to expand the definition of pollution damage, but this was rejected.

In 1992, the IMO adopted two protocols (known as the 1992 Protocols) that were identical to the 1984 Protocols except for the entry into force requirements. The main purpose of the new protocols was to facilitate the fulfillment of the requirements for the entry into force of the 1984 Protocols. This change was intended to make the revised conventions effective without the participation of the US.[219] The 1992 Fund Protocol differs from the Legal Committee draft by including an additional clause limiting the Fund contributions of any one state to a maximum of 27.5% of the total annual Fund contributions. (Article 36 ter of 1992 Fund Protocol)

The CLC and the Fund Convention after revision of the 1992 Protocols which are often referred to as the CLC 1992 and the Fund Convention 1992 have entered into force on 30 May 1996.[220] The entry into force requirement was fulfilled on 30 May 1995, when Denmark deposited its

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ratification of the Protocol at an early stage by states whose oil receivers paid a substantial proportion of the contributions to the IOPC Fund. The amount payable by a single member state under the Fund Convention 1992 is limited to 27.5% of the total annual contributions for 5 years after entry into force or until the quantity of contributing oil received annually in all member states has reached 750 million tons. See Article 36.1-4 of the Fund Convention 1992.

[217] In 1990, Japan represented 258 million tons and Italy 133 million tons among the total 900 million tons of contributing oil. The Japanese share of the annual contribution to the Fund was 27% in 1990. The amount of oil received in the US was approximately 460 million tons according to M Goransson. See M Goransson, The 1984 and 1992 Protocols to the Civil Liability Convention, 1969 and the Fund Convention, 1971, in: De la Rue, C. (ed.), Liability for Damage to the Marine Environment, Lloyd's of London Press, 1993, p71-82. Between 1984 and 1992, 21 cases were submitted to the Fund. Among these incidents 7 occurred in Japan, 3 in Italy, 3 in Canada, 3 in Sweden, 2 in the UK, 1 in United Arab Emirates, 1 in the Caribbean and 1 in France. See M Remond-Gouilloud, The Future of the Compensation System as Established by International Convention, in: De la Rue, C. (ed.), Liability for Damage to the Marine Environment, Lloyd's of London Press, 1993, p83-89.

[218] LEG/CONF.9/INF.2, p176.

[219] Cooney, M.K., The Stormy Seas of Oil Pollution Liability: Will Protection and Indemnity Clubs Survive? Houston Journal of International Law, 1993, Vol. 16, p343-357.

[220] For an excellent overview of the contents and importance of the 1992 Protocols see Brans, E., Liability for ecological damage under the 1992 Protocols to the Civil Liability Convention and the Fund Convention, and the Oil Pollution Act of 1990, Tijdschrift voor Milieuaansprakelijkheid (TMA), 1994, 61-67 and 85-91 and Brans, 2001, p344-360.

instrument of ratification.[221] It thus took four years for the 1992 Conventions to come into force. This four years time lapse is considered by some as an extremely short time frame in the context of international conventions.[222]

The major changes in the 1992 Conventions in comparison with the old regime of the CLC 1969 and Fund Convention 1971 mainly include: first, the amounts available after the entry into force of the 1992 Conventions were thus substantially increased. Second, the scope of application of the Conventions was extended, and the definition of pollution damage was more accurately specified. Moreover, the 1992 Conventions introduced a tacit amendment procedure which allowed for easy updating of the compensation limits in the future. However, the basic principle of a joint contribution by the oil industry and the shipping industry as well as a strict liability of the tanker owner with financial caps on liability remained into existence. Let us focus more closely on the changes made through the 1992 Conventions.

2. Evaluation

Japan has played a crucial role in the revision of the 1992 Protocols as it is the largest single contributor to the 1971 Fund. In 1991, Japan contributed to 28.92% of the entire 1971 Fund. Hence, its request to impose a cap on the contribution from one state was accepted, although the finally adopted cap was 27.5% which was a bit higher than the proportion it originally proposed (25%). This is still considered a concession made to the Japanese delegation in exchange for the support from the Japanese delegation for the 1992 Protocols.

Italy, which was pushing for a greater recovery in the wake of the 1991 Haven spill, desired a broader interpretation of pollution damage. The Italian proposal to expand the definition of pollution damage was rejected probably because Italy's participation was less critical to the international regime, in particular taking into account the expanded liability under Italian proposal.[223]

IV. Disappearance of the voluntary agreements

1. Interaction with the International Conventions

1.1 General overview

Although the TOVALOP and CRISTAL were originally formulated as a provisional measure pending the coming into force of the CLC and Fund Convention,[224] it has remained in force for a long period of almost 30 years since it covers significant gaps which exist in the liability

[221] Trew, J. and Seward, R., The Britannia Guide to Oil Pollution Legislation, The Britannia Steam Ship Insurance Association Limited, 1999, p12.
[222] Jacobsson, M., The International Compensation Regime 25 Years On, in: The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, the IOPC Funds, 2003, p14.
[223] MJ Yost, International Maritime Law and the US Admiralty Lawyer: A Current Assessment, University of San Francisco Maritime Law Journal, 1995, Vol. 7, p313-341.
[224] See e.g. CRISTAL Clause III (B) and (C), and Preamble.

conventions.[225] The industry schemes TOVALOP and CRISTAL have, for a long period in history, provided a worldwide voluntary scheme of compensation for pollution damage caused by tankers.

The voluntary schemes were amended several times since its inception, especially in order to keep in line with the international regime of CLC and Fund Convention.[226] One most obvious change in this direction was the liability under TOVALOP was changed from fault liability to strict liability.

The attempts to revise the international regime of CLC/Fund Convention started since 1979 and accomplished in 1984 with the adoption of the 1984 Protocols. Parallel modifications to the voluntary agreements followed the international regime in 1987, as the industry was not satisfied with the 1984 Protocols.[227]

These voluntary schemes were considered to have fulfilled their intended purpose and in November 1995 the industries decided to abrogate the voluntary agreements on 20 February 1997. However, according to De la Rue, they have played a role behind the scenes in reapportioning the financial burden of oil spills between the shipping and the oil industries.[228]

In countries which have not ratified or acceded to the CLC, TOVALOP was usually the principal mechanism for compensating victims of oil pollution from tankers under the applicable local law. There were even cases where TOVALOP, especially TOVALOP Supplement, could be involved in responding to a spill in a Civil Liability Convention country.

1.2 Amendments of the voluntary agreements

Most international conventions take many years before they are ratified by sufficient countries to bring them into force. It took 6 years for the CLC and 7 years for the Fund Convention could come into force. There were inevitably countries that have not adopted any of these international conventions or countries that have ratified only the CLC but not the Fund Convention. Hence, the industry schemes to a large extent solved the problem of compensation for oil pollution victims at least on an interim basis. They were created as stopgap measure to fill in the gaps existing in national and international legislation.

In 1975, when the CLC came into effect, the question arose as to whether the voluntary schemes would still be useful and necessary to continue their existence. The Federation held a spate of meetings in 1977 and early 1978 whereby they produced a radical redraft of TOVALOP. In June 1978 the revised TOVALOP came into force to reflect the principal provisions of the CLC.[229] As

[225] Wilkinson, D., 1993, p73.
[226] For the revision of the voluntary regime, see Lawrence Cohen, Revision of TOVALOP and CRISTAL: Strong Ships for Stormy Seas, Journal of Maritime Law and Commerce, 1987, Vol.18, p525-539. See also Clark, The Future of TOVALOP, Lloyd's Maritime and Commercial Law Quarterly, 1978, 2, p572.
[227] Wu,C., 1996, p129.
[228] De la Rue, C. and Anderson, C.,1998, p4.
[229] Becker, G. and Ghee, P., The Development of TOVALOP and the 1978 Changes, in: Ten Years of TOVALOP, ITOPF, p6.

a result, an almost uniform world wide regime was applicable to tanker-source oil pollution damage. The maximum compensation available under the revised TOVALOP has reached $70 million and the total compensation available under the voluntary regime is $135million.[230]

However, those concerned with the 1978 revision determined to preserve some of the features of TOVALOP as it had previously existed, even if this meant going beyond the provisions of the CLC. Hence, the revision included coverage of bareboat charterers as well as actual owners, application of the Agreement to tankers in ballast as well as laden vessels, and application of the Agreement to pure threat of an oil spill in addition to pollution damage caused by an actual spill.

2. Disappearance of TOVALOP and CRISTAL

The rapid growth in acceptance by maritime states of the CLC and Fund Conventions led to the decision to end TOVALOP and CRISTAL on 20 February 1997. At the time of its termination, approximately 97% of the world's tanker tonnage was party to the TOVALOP, which is 195.5 million gross registered tonnage in the form of 6600 tankers are participating in the Agreement.[231] ITOPF (the International Tanker Owners Pollution Federation) was originally established to administer the TOVALOP voluntary agreement. It has now become a provider of specialized technical services in the field of marine oil pollution. It continues to be arranged through the P&I Clubs and other oil pollution insurers. The organization currently has some 4,000 tanker owner Members who between them own or operate some 98% of the world's tank-vessel tonnage.[232]

The disappearance of TOVALOP and CRISTAL has had a significant effect on the handling of marine pollution compensation claims from tankers in non-convention states. In the case of pollution in the waters of a non-convention country, and in the absence of the voluntary agreements, the claim would be brought under the domestic legislation of that state against, probably, the only vessel of the company, and a flag of convenience company with no assets.

The industries felt that the continuing existence of the voluntary schemes could act as a disincentive for States that had not been the parties to the International Conventions yet.[233]

V. Winding up of the 1971 Fund

1. 1969/1971 regime v. 1992 regime

As from 16 May 1998, parties to the 1992 Conventions ceased to be parties to the CLC 1969 and the Fund Convention 1971 due to a mechanism of compulsory denunciation of the old regime established in the 1992 Conventions.[234] As a result, since then no State can be party to both

[230] Wilkinson, D., 1993, p75.
[231] Trew, J. and Seward, R., 1999, p11.
[232] The website of ITOPF: www.itopf.com
[233] Jacobsson, M., 2003, p13.
[234] Article 31 of the Fund Convention 1992 on the "Denunciation of the 1969 and 1971 Conventions" stipulated that 6 months after entry into force requirements under the 1992 Protocol (at least 8 States have ratified the Protocol and the total quantity of contributing oil has reached 450 million tons) are fulfilled, the parties to the

1969/1971 Conventions and to the 1992 Conventions at the same time. However, the co-existence of two Funds was still problematic. As from 2002, the 1971 Fund was terminated due to serious difficulties which occurred with respect to the co-existing of two Funds. Hence, the 1971 Fund was terminated in 2002. This to a large extent has solved the financial difficulty faced by the Member States in the 1971 Fund. Nevertheless there are still two CLC co-existing, although it is so obvious from the number of member States that the CLC 1969 is losing its power.

2. Current situation of the two CLC

As of 20 May 2008, there are 38 States parties to the CLC 1969 whereas the number of Member States to the CLC 1992 is 119.[235]

The remaining members of the CLC 1969 are mainly States from Africa, South America and some Middle East States like United Arab Emirates, Saudi Arabia and Egypt. (Why these Middle East States with rich oil resources have not joined the 1992 Conventions with high compensation amount?)

3. Winding up of the 1971 Fund

Although the number of Member States to the 1971 Fund was decreasing, it seems unlikely that the number would fall below the required number on a short term. As of October 1999, 46 States have ratified the Fund Convention 1992, whereas 42 States remained Member States to the 1971 Fund. (Under the original wording of the Fund Convention 1971, it would cease to be in force when the number of State Parties to the Convention fell below three.)

However, the two Funds existing at the same time did not make efficient use of the available resources and the sheer co-existence was even problematic. The fact that the contribution from oil levies was divided between two Funds has to a large extent weakened the financial viability of the Fund and hence lowered the chance of full compensation in case of a major oil spill. In order to avoid the damaging consequences, the IMO and the IOPC Fund Secretariat have been working actively to encourage the governments who have not yet done so to accede to the 1992 Conventions and to denounce the 1969 and 1971 regimes.[236] Some major contributing states to the Fund already abolished the 1971 Fund and ratified the 1992 Fund.

When Italy decided to denunciate the 1971 Fund on 8 October 2000 and to participate the 1992 Fund in September 2000, it had a significant impact on the development of the Funds. Italy was originally a major contributor to the 1971 Fund. As stipulated in the Fund Convention, the levy per tonne of contributing oil is calculated on the basis of the total quantity of contributing oil

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1992 Protocols should "denounce the Fund Convention 1971 and the 1969 Liability Convention". However, it should be noted that according to Article 30 of the Fund Convention 1992, it would enter into force 12 months after the afore-mentioned requirements are fulfilled.

[235] Statistics from the website of the Fund: www.iopcfund.org, last accessed on 16 June 2008.

[236] Explanatory note prepared by the 1992 Fund Secretariat, The International Oil Pollution Compensation Fund 1992.

received in all Member States. When Italy left the 1971 Fund, the total quantity of contributing oil would fall from 250 million tonnes to 110 million tonnes, which means the remaining States would have to pay a much greater contribution (if an incident ever happens involving the 1971 Fund). Some delegations expressed their fear during the Executive Committee meeting between 18 and 22 October 1999 that if an incident occurred whereby the damage was to be compensated by the 1971 Fund, the difficulty in functioning would be worsening as there would be too few or even no contributors in the remaining Member States.

In addition, there was another practical difficulty with regard to the application of the Funds. The Member States to the Fund Conventions should bear the obligation to submit an annual report on the quantities of contributing oil received in that State. In October 1999, two thirds of the annual oil reports were outstanding with respect to the remaining Member States of the 1971 Fund, where only three Member States to the 1992 Fund had outstanding oil reports. This contributed to the determination of the Executive Committee to terminate the 1971 Fund.

Realizing the difficulties confronted by the 1971 Fund under the situation of declining membership, the governing bodies of the Fund decided to terminate the 1971 Fund. For this reason, at the request of the Director of the 1971 Fund, Mr. Måns Jacobssons, a Diplomatic Conference under the auspices of the IMO was convened in 2000 to resolve this matter. This Conference was chaired by Captain Raja Malik, who has been the Chairman of the 1971 Fund Administrative Council since 2001. It adopted a Protocol (as proposed by the Executive Committee of the Fund) amending the Convention so that it would cease to be in force when the number of Contracting Parties fell below 25 or the total quantity of contributing oil received in the remaining Contracting States fell below 100 million tonnes, whichever was earlier.

The ratification of this Protocol was facilitated by the tacit acceptance procedure, which means the Protocol would come into force unless a certain number of States raised objections to the Protocol within a certain period of time (different than the traditional ratification procedure which requires that a Protocol would come into force when a certain number of States ratified it). No such objections were made, therefore this Protocol came into force in 2002.

As a result, the Fund Convention 1971 ceased to be in force on 24 May 2002 when the number of Member States to the 1971 Fund fell below 25.[237] Hence, the 1971 Fund was in the process of being wound up but still continued its operation with respect to the pending claims arising from incidents occurring before 24 May 2002 till they are settled.

In order to ensure full compensation for future incidents, the 1971 Fund has taken out insurance to cover its liability to pay compensation for pollution damage resulting from incidents occurring after 1700 hours GMT on 25 October 2000 until 31 December 2001. The reason why the liability insurance would cover such period was because the 1971 Fund was expected to be terminated by the end of 2001 when India denunciated it.[238]

[237] This is when the United Arab Emirates has denunciated the Fund Convention 1971.
[238] Malik, R., Winding up of the 1971 Fund, in: The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, the IOPC Funds, 2003, p77 – 79.

By the end of 2004, there were outstanding claims in respect of the Nissos Amorgos incident (Venezuela, 1997) and possibly in respect of the Iliad (Greece, 1993), Pontoon 300 (United Arab Emirates, 1998) and Alambra (Estonia, 2000) incidents, although the 1971 Fund might still be involved in recourse actions concerning four other incidents, including Vistabella (Caribbean, 1991), Pontoon 300, Al Jaziah 1 (United Arab Emirates, 2000) and Nissos Amorgos incidents.

Although the Fund Convention 1971 ceased to be in force on 24 May 2002, there were still a number of States which remained Members of the 1971 Fund and have not acceded to the Fund Convention 1992. As in February 2005, there are still 10 States have not acceded to the 1992 Convention, namely Albania, Benin, Côte d'Ivoire, Gambia, Guyana, Kuwait, Maldives, Mauritania, Saint Kitts and Nevis and Syrian Arab Republic.

VI. The 2000 Protocols

The adequacy of the 1992 Conventions came under the spotlight again following the accidents with the Nakhodka in 1997 (Japan), Erika in 1999 (France) and Prestige in 2002 (Spain). It is probably due to the fact that so many serious oil spills occurred in European waters that the European Union has played an important role in the most recent evolvement of the international regime on marine oil pollution compensation. It is probably thanks to the activism of the European Union that the IMO Legal Committee has agreed in October 2000 to a 50% increase of the compensation amounts available under the CLC and the Fund Convention. This change contained in the 2000 Protocols has taken effect since November 2003. Moreover, under the pressure from a regional compensation fund of the EU, the IMO has adopted a Supplementary Fund Protocol in 2003. It is also thanks to the efforts of the EU countries that this 2003 Protocol could come in force in March 2005.

So in this part, I will examine how under the influence of the EU States, the most recent changes to the international regime took place.

1. 2000 Protocols

1.1 Erika and EU action: Erika I proposal

The Erika, an Italian owned oil tanker of some 37,000 deadweight tons and registered in Malta, broke up on 12 December 1999, polluting 400 kilometers of the French coastline with its cargo of heavy fuel oil.[239] The claims reached EUR 800 million, however, the compensation available at the time was only EUR 184 million (EUR 12.8 million from the Steamship Mutual P&I Club and approximately EUR 171 million from the 1992 Fund). The Erika incident generated numerous discussion, proposals and counter-proposals.

In the Erika I package, the Commission developed three criteria to examine whether the existing liability and compensation system is wholly satisfactory. It then critically reviewed the

[239] See on the incident with the Erika and the consequences for further (European) action towards the prevention of oil spills Roche, C., Après l'Erika: la prevention de la pollution des mers par le renforcement de la sécurité maritime en Europe (Erika I), Revue Juridique de l'Environnement, 2002, Vol.3, p373-392.

international regime according to these criteria.[240]

The first criterion is prompt compensation. The CLC and the Fund regime, according to the Commission, have been able to handle most of the cases promptly without extensive and lengthy judicial procedures. The main issue of debate and divergence between the EU and the international regime is the limitation of liability. The Commission considered that, in the case of recent high profile European oil spills, where the compensation claims came close to the limitation, there were always unacceptably long delays in payment.[241] According to the Commission, the main reason for this was not the deficiency of the compensation procedure as such, but rather the insufficient limits of compensation which caused uncertainty as to the final costs of an oil spill.

The second criterion was whether there was a sufficiently high compensation limit. The limit set by the CLC and the Fund Convention was considered not high enough to cover any potential disaster. Hence, victims of serious oil spills remain inadequately compensated.

The third criterion was the dissuasive effect of the regime. In this respect, the CLC and the Fund regime were also considered unsatisfactory due to the fact that the limitation of the shipowner was almost unbreakable and cargo owners on the other hand had no individual responsibility at all. No parties in an oil transport activity would have a sufficient incentive to give up the practice of deliberately employing vessels that were in very poor condition.

1.2 International reaction

The International Group of P&I Clubs, however, were of the view that the current international compensation regime has been quite successful, and they had the fear that to amend the Convention in substance would destroy the system.[242]

1.3 2000 Protocols

In Article 15 of the CLC 1992 (Article 33 of the Fund Convention 1992 contains the same provision), there is a newly added provision on "amendments of limitation amounts" which facilitates the whole procedure of updating the limitation amounts. This Article stipulated that the amendment procedure should be started at the proposal of at least one quarter of the contracting States to amend the limits of liability, and the amendments must be adopted by a two-thirds majority of the contracting States present and voting in the Legal Committee, subject to procedural requirements. Any amendment made under these Articles will enter into force at the earliest 36 months after its adoption by the IMO Legal Committee.

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[240] COM (2000)142 final, 21 March 2000, p34–37.

[241] The examples given by the Commission to justify its argument are inter alia: the Aegean Sea in Spain 1992, the Braer in the United Kingdom 1993 and the Sea Empress in the United Kingdom 1996. The claimants of these oil spills indeed have encountered a delay in compensation without knowing if they would receive full compensation.

[242] 92FUND/WRG.3/1417, Review of the International Compensation Regime, submitted by the International Group of P&I Clubs, on 20 January 2003. It was argued that the widespread adoption of the Conventions is not likely to be achieved by new instruments in the short term.

There are also certain factors needed to be taken into account while amending the limitation amounts:

Article 15(5) reads: "When acting on a proposal to amend the limits, the Legal Committee shall take into account the experience of incident and in particular the amount of damage resulting therefrom, changes in the monetary values and the effect of the proposed amendment on the cost of insurance. It shall also take into account the relationship between the limits in Article V (1), of the 1969 Liability convention as amended by this Protocol and those in Article 4 (4), of the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992."

Article 15(6)(b) reads: "No limit may be increased so as to exceed an amount which corresponds to the limit laid down in the 1969 Liability Convention as amended by this Protocol increased by 6 per cent per year calculated on a compound basis from 15 January 1993."

Article 15(6)(c) reads: "No limit may be increased so as to exceed an amount which corresponds to the limit laid down in the 1969 Liability Convention as amended by this Protocol multiplied by 3."

As mentioned before, the CLC 1992 provides that the limits can be increased according to an amendment procedure, and the maximum increase under this procedure depends on a number of factors. This procedure would still not allow for an increase of more than 50% of the existing limit. Hence, at the IMO Legal Committee meeting in October 2000, resolutions were passed to increase the limits of the CLC 1992 and the Fund Convention by 50%, with effect from November 2003.

The compensation limits set by the 2000 amendments, entering into force in 2003 are as follows:
– For a ship not exceeding 5,000 gross tonnage: liability is limited to 4.51 million SDR, approximately 5.78 million US (under the 1992 Convention, the limit was 3 million SDR)
– For a ship of 5000 to 140,000 gross tonnage: liability is limited to 4.51 million SDR (US$ 5.78 million) plus 631 SDR (US$ 807) for each additional gross tonne over 5,000 (under 1992 Protocol, the limit was 3 million SDR plus 420 SDR for each additional gross tonne)
– For a ship over 140,000 gross tonnage: liability is limited to 89.77 million SDR, approximately US$ 115 million (under 1992 Convention, the limit was 59.7 million SDR)

As a result of these changes in 2000 the amounts were therefore to be raised substantially (to approximately US$ 115 million). This may seem impressive, but before the 2000 Protocols had entered into force in 2003 the Prestige incident in 2002 again cast doubts on whether the regime could provide a satisfactory solution in case of disaster oil spills.

VII. 2003 Supplementary Fund Protocol and further study

1. Background

1.1 Erika II proposals

Already the Erika II package, the Commission proposed to set up a European Fund ('the COPE Fund') with an updated ceiling of €1 billion (instead of €200 million under the international conventions).[243] Moreover, in the Erika II package, the Commission raised the issue that the scope of application of the international conventions in the sense of pollution damage covered should be extended, and that the balance of responsibilities of all parties involved should be re-examined.

1.1.1 Limitation of liability

In the explanatory memorandum to the Erika II proposals the Commission considered that a 50 per cent increase in the existing limits (which would provide some €300 million in total) was insufficient to guarantee adequate protection for victims in case of major oil spills in Europe both now and in the future. The Commission took the view that all oil spills should be adequately and promptly compensated, although statistics show that some ten out of 100 oil spills dealt with by the Fund raised serious doubts on the adequacy of the limits. Moreover, the international procedures needed to achieve concrete results in increasing the limit would be lengthy. Therefore, the Commission proposed in the Erika II package to complement the then existing international regime by creating a European supplementary Fund, the so-called COPE Fund,[244] in order to compensate better oil pollution victims in Europe. The compensation under the COPE Fund would be based on the same principles as the current international fund system, but the financial limits would be raised to €1 billion, which the Commission considered to be an adequate amount.

Although the Commission criticized the international regime of CLC and the Fund for not being able to provide sufficient compensation to the victims of the Erika spillage,[245] the efficiency of the proposed regional fund is doubtful. The COPE Fund was designed by the Commission to speed up the compensation. However, it was to be applied only to those not fully compensated under the international regime. The question was raised whether this was optimal since in this model the victim has to wait for a decision under the international mechanism. This proposed COPE Fund was also rejected by the oil industry, as they would be the contributor to such a fund which, in their view, would increase their liability to an unreasonable extent.

Hence, the Council preferred to refer the discussion to the competent international body, namely the IMO, in order to obtain a similar agreement, but one which can be applied worldwide.[246] A

[243] See in this respect the amended proposal for a regulation of the European Parliament and of the Council on the Establishment of a Fund for the Compensation of Oil Pollution Damage in European Waters and Related Measures, Official Journal C227 E/487 of 24 September 2002.
[244] The Fund for Compensation for Oil Pollution in European waters, referred to as the COPE Fund.
[245] In a Commission Memo of 2000, 'Erika, two years on', the Commission found that people worst affected by the Erika spillage working in maritime or other related sectors (eg tourism) had not been fully compensated for their losses. The Commission considered that the international scheme was to be blamed for not covering full costs of an incident of this scale.
[246] The Transport Council in December 2000 adopted conclusions on the need to achieve improvements to the

Protocol to the Fund Convention, modeled on this European COPE Fund, was later established and adopted by the IMO in May 2003. Therefore there was no longer any need for a special 'European' COPE Fund for oil pollution, although the EU Proposal to set up such a fund may have influenced the international decision-making by the IMO. Indeed, the new amount available in the IOPC Fund is probably not by accident almost the amount that was proposed in the European COPE Fund (€1 billion). After the change to the Fund Convention the Member States were urged in a Proposal in September 2003 to ratify that amendment as soon as possible. This will be discussed further below in dealing with the Community reactions to the Prestige accident.

1.1.2 Definition of pollution damage

The adequacy of the compensation regime will not only be evaluated in terms of the amount of compensation, but also, as the Commission suggested, in terms of the types of damage that are covered by the regime. The Commission took the view that if the range of damage were to be extended, the amounts available for compensation should be raised accordingly. Hence, the substantial rise in financial limits is further justified by the expanding definition of the damage to be covered.

The international regime established under the CLC and Fund Convention covered pollution damage, including preventive measures and to a limited extent environmental damage per se for accidents occurring in the coastal waters of the States (up to 200 miles). The Commission considered that the introduction of rules at Community level in this respect would enhance the implementation of the polluter pays principle and would thus be in line with the White Paper, which aims to extend the definition of pollution damage.[247] Therefore below I will specifically address the relationship between the EU Directive on environmental liability and the international oil pollution regime, especially as far as the definition of 'pollution damage' is concerned.

1.1.3 Responsibilities and liabilities

The Commission stated that an adequate liability and compensation system should reflect a fair balance between the parties involved in the activities, so stakeholders are given incentives to take preventive measures. However, the shipowner's right to limit his liability was almost unbreakable, and his liability was solely calculated on the basis of the size of the ship, without taking account of other relevant factors, like the nature of the cargo carried and the amount of oil spilled. The Commission thus suggested that the threshold for the loss of limitation rights should be lowered, and that proof of gross negligence on behalf of the shipowner should trigger unlimited liability. In the Commission's view such a measure would produce both preventive and punitive effects. I will discuss this further below.

1.2 Prestige incident and EU activism

The tanker Prestige sank off the Spanish coast on 13 November 2002 and spilled half of its 70,000

existing international regime, including "a substantial increase in liability and compensation ceilings".

[247] The White Paper on Environmental Liability proposed bringing together damage to biodiversity and damage in the form of contamination of sites under the heading of "environmental damage".

tonnes of cargo of fuel oil (more environmentally dangerous than crude oil) off the Spanish coast. It is estimated at the time that the economic consequences of this oil spill in Spain, France and Portugal may be as high as 900 million USD, whereas only 186 million USD was available for compensation.

The European Commission reacted very quickly to the Prestige incident. It adopted on 3 December 2002 (which is just two weeks after the occurrence of the incident) a Communication on improving safety at sea[248] whereby the measures in Erika I and II packages were to be strengthened. This Communication focused specifically on updating the existing international rules on compensation and civil liability.

In this Communication the Commission asked the member states to work with determination within the IMO with a view to rapid implementation by the IOPC Fund of an additional compensation scheme for the victims of oil spills up to the increased limit of €1 billion. It was very likely at the time that in case of failure of the proposal at international level, the EU would have to address the question within the EU framework, like the model of the US system.[249] One should not forget that the Commission already had its plan ready for the introduction of a regional COPE Fund. After the Prestige accident the Council took an even firmer position on the need for an improved compensation arrangement, and this was confirmed at the European Summit on 21 March 2003.[250]

2. IMO reaction and the adoption of the 2003 Supplementary Fund

2.1 Adoption of the 2003 Supplementary Fund Protocol

The proposal of a third tier of compensation originally developed by the European Commission was confirmed by the IMO at the London Diplomatic Conference of 12–16 May 2003, which adopted on the 16th May the 2003 Protocol on the Establishment of a Supplementary Fund for Oil Pollution Damage. It established a Supplementary Fund of 750 million SDR (at the time of adoption this corresponded to approximately €920 million or US$ 1,000 million). The Supplementary Fund will not replace the existing 1992 Fund, but only make additional compensation available to victims in the states that ratify the Protocol. The creation of this new fund will of course substantially improve the compensation to pollution victims, by comparison with the previous situation.

Hereunder is a table which summarizes the compensation limits in the international regime:[251]

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[248] Communication on Improving Safety at Sea in Response to the Prestige Accident, 3 December 2002.

[249] In the context of the 1990 Oil Pollution Act (OPA 1990), the United States has decided not to join the international arrangement, but has set up its own system with a compensation fund of US$ 1 billion.

[250] Brussels European Council of 20 and 21 March 2003. The Presidency Conclusions called inter alia for the following: 'in terms of compensation for the victims of pollution, including environmental damage, Member States to pursue within the forthcoming diplomatic conference at the IMO in May an increase in the current ceiling on compensation to €1 billion; failing a positive outcome within the IMO to work on the existing proposal for a Regulation establishing a special European fund endowed with €1 billion with a view to the creation of the fund before the end of the year and drawing as much as possible on private funding', 26–27.

[251] The conversion rate of SDR the rate of 15 May 2008, as defined by the IMF, 1SDR = USD 1.618450.

	CLC 1969[252]	CLC 1992	2000 CLC	
Tankers ≤ 5000 GT	133 SDR/ton (215USD/ton)	3 million SDR (4.9 million USD)	4.5 million SDR (7.3 million USD)	
Tankers >5000 GT	133 SDR/ton (215USD/ton)	3 million SDR + 420 SDR/ton (680USD/ton)	4.5 million SDR + 631SDR/ton (1021 USD/ton)	
Aggregate amount	14 million SDR (22.7 million USD)	59.7 million SDR (96.6 million USD)	89.8 million SDR (145.3 million USD)	
	1971 Fund	1992 Fund	2000 Fund	Supplementary Fund
Maximum compensation	60 million SDR (97.1 million USD)	135 million SDR (218.5 million USD)	203 million SDR (328.5 million USD)	750million SDR (1213.8 million USD)

Some provisions of the 2003 Supplementary Fund Protocol are worth mentioning. First, the state responsibility under the 2003 Protocol is heavier compared with that under the 1992 Fund. When the aggregate quantity of contributing oil received in a member state in a given calendar year is less than 1 million tons (the minimum amount of contributing oil is the same as under the 1992 Fund, being 150,000 tons), that member state shall assume the obligations that would be incumbent on any person who would be liable to contribute to the Supplementary Fund in respect of oil received in that State insofar as no liable persons exists for the aggregate quantity of oil received. It means the member state would be liable to pay contributions for a quantity of contributing oil corresponding to the difference between 1 million tons and the aggregate quantity of actual contributing oil receipts reported in respect of that state.[253] Another provision is that the capping of contributions from one particular state is 20%, in contrast with 27.5% under the 1992 Fund.

2.2 EU reaction

Article 21 of the Supplementary Fund Convention stipulates that it will enter into force three months after eight States, representing a total of at least 450 million tonnes of contributing oil, have become contracting parties to it. The Commission raised the concern that membership of the supplementary fund might be restricted as there seemed to be no current need for all the States of the 1992 Conventions to join an improved system. However, action by EU Member States alone will be sufficient to bring the Supplementary Fund Protocol into operation. In the hope of bringing the updated regime into operation before the end of 2003, the Commission proposed on 8 September 2003 that the Council take a decision urging Member States to ratify the Supplementary Fund Convention as soon as possible.[254] This was supported by the Parliament in

[252] In the CLC 1969, the calculation of limitation amount was simply 133 SDR per ton and there was no difference between tankers of less than 5000 tons or not. This distinction is simply to facilitate the comparison.
[253] Annual Report 2005, IOPC Fund, p29.
[254] COM(2003)534 final, Proposal for a Council Decision Authorizing the Member States to Sign, Ratify or Accede to, in the Interest of the European Community, the Protocol of 2003 to the International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992, and Authorizing Austria and Luxemburg, in the Interest of the European Community, to Accede to the Underlying Instruments, 8 September 2003.

January 2004.[255]

The current Member States of the European Union, with the exception of Austria and Luxemburg, are contracting parties to the 1992 Conventions, and they are authorized to sign, ratify or accede to the 2003 Protocol by the end of 2003. As for Austria and Luxemburg, it is considered to be in the interest of the European Community that these two countries accede to the CLC and the Fund Conventions, whereby the issue of jurisdiction and enforcement of judgments would be facilitated.[256] Since the accession procedure will inevitably take some time, the deadline for these two Member States is set at 31 December 2005. On 29 January 2004, in the Recommendation from the Committee on Legal Affairs and the Internal Market to the Parliament, the deadline for the Member States to sign or ratify the Supplementary Protocol was put back to 30 June 2004.[257]

2.3 Evaluation of the Supplementary Fund

The 2003 Protocol provides that it will enter into force three months after it has been ratified by at least eight States and the aggregate quantity of contributing oil received in these States after sea transport is at least 450 million tonnes. These conditions were fulfilled on 3 December 2004 when the 2003 Protocol was ratified by Denmark, Norway, Finland, France, Ireland, Japan, Germany and Spain, which had received an aggregate quantity of some 532 million tonnes of contributing oil during the year of 2003. The 2003 Supplementary Fund Protocol thus came into force on 3 March 2005. This shows again the activism of the EU member states in promoting the international marine oil pollution compensation regime. With the exception of Japan, all the other states among the first ones to ratify the Supplementary Fund Protocol are EU states. As of 10 April 2010, 26 states have become party to the Supplementary Fund.[258]

The Supplementary Fund will have available an amount of some 770 million USD, in addition to the amount of 286 million USD under the 1992 Fund after the increase which takes effect on 1 November 2003. As a result, the total amount available for compensation will be approximately 1 billion USD. The advantage of the Supplementary Fund might be that there would be no need for pro-rata payments like under the 1992 Fund.[259] According to the Director of the 1992 Fund, Mr. Måns Jacobsson, the amount available under the Supplementary Fund could ensure "in practically all cases" it would be possible from the outset to pay compensation for claims in States Parties at 100% of the amount of the damage.[260] The Secretary - General of the IMO Mr. William O'Neil had the same view that the goal of full compensation of oil pollution victims can be reached through the establishment of this Supplementary Fund.[261]

However, the Supplementary Fund will only cover incidents which occur after the entry into force

[255] Recommendation A5-0042/2004 final of 29 January 2004.
[256] Council Regulation 44/2001 sets out common rules on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters. The Regulation binds all Member States but Denmark. The 1968 Brussels Convention remains in force in the relations between Denmark and the other Member States.
[257] Recommendation A5-0042/2004 final of 29 January 2004.
[258] Information from the website of the Fund: www.iopcfund.org/facts.htm
[259] Jacobsson, M., 2003, p22.
[260] Press Statement of the IOPC Fund, 7 December 2004.
[261] Jacobsson, M., 2003, p32.

of the Protocol, and so far there has not been such an incident yet. Therefore, the assessment of the impact of the Supplementary Fund is purely theoretical, and it will not be fully realized probably until there is an oil spill which is one of a large enough scale to bring it into action.

There is some difference between the Supplementary Fund and the 1992 Fund. The annual contribution to the Supplementary Fund is made by person who has received in a calendar year more than 150,000 tonnes contributing oil. Where the aggregate quantity of contributing oil received in a member state in a given calendar year is less than 1 million tones, that member state shall assume the obligation that would be incumbent on any person who would be liable to contribute to the Supplementary Fund in respect of oil received in that state in so far as no liable person exists for the aggregate quantity of oil received. It means that th emember state would be liable to pay contributions for a quantity of contributing oil corresponding to the difference between 1 million tones and the aggregate quantity of actual contributing oil receipts reported in respect of that state.[262]

3. Industry reaction: STOPIA and TOPIA

In October 2001, the International Group of P& I Clubs offered to the 1992 Fund to increase the limit of liability for small ships under the CLC 1992 on a voluntary basis from 4.52 million SDR to 20 million SDR through a voluntary scheme, known as the Small Tankers Oil Pollution Indemnification Agreement (STOPIA).[263] Originally under the CLC 1992 shipowners for tankers of 5,000 gross tons or less (after increase through the 2000 Protocol) are subject to a liability limit of 4.51 million SDR. The International Group considered that incidents involving small tankers would result in a situation that the 1992 Fund had to intervene in a large number of incidents and hence bear a relatively high proportion of the compensation costs. On the other hand, if the liability limits of small tanker owners under the CLC 1992 were higher, the Fund would be called upon for less incidents. Therefore, the International Group decided in STOPIA to increase the liability limit of small tanker owners to 20 million SDR. This amount is equivalent to the liability limit under the CLC 1992 for a ship of 29,548 gross tons.[264]

The reason for the International Group to do so, according to the Explanatory Note of the STOPIA was to show their support for the increase of available compensation under the international regime via the Supplementary Fund Protocol and to re-apportions the ultimate costs of oil spills involving ships up to a certain size.[265] In view of the envisaged Supplementary Fund Protocol which would impose increased financial burden on oil receivers, the International Group found it necessary to readjust the cost bearing so that the principle of equitable sharing of the oil pollution compensation costs could be maintained.[266] In line with these ideas, STOPIA will operate only when an incident affecting a state which is a party to the Supplementary Fund Protocol and when

[262] Annual Report 2005, International Oil Pollution Compensation Funds, 2005, p29.
[263] Letter from the Chairman of the International Group of P & I Clubs to the Director of the IOPC Fund, 28 January 2005. See Document 92FUND/A/ES.9/24, Annex I.
[264] Explanatory Not of the Small Tanker Oil pollution Indemnification Agreement (STOPIA), see Document 92FUND/A/ES.9/24, Annex I, p4.
[265] See Document 92 FUND/A/ES.9/24, Annex I, p4.
[266] Letter from the Chairman of the International Group of P & I Clubs to the Director of the IOPC Fund, 28 January 2005. See Document 92FUND/A/ES.9/24, Annex I.

liability is imposed on the shipowner under the CLC 1992. As long as the compensation amount exceeds the liability limits of the shipowner under the CLC 1992, the STOPIA will operate even if there is no claim upon the Supplementary Fund. The STOPIA is intended to take effect when the Supplementary Fund Protocol enters into force.

The STOPIA entered into force on 3 March 2005 (the date when the Supplementary Fund Protocol entered into effect), however, at the same time, the International Group was considering to develop a more balanced sharing of financial responsibilities of states parties to the Supplementary Fund Protocol. This came to be the scheme of the Tanker Oil Pollution Indemnification Agreement (TOPIA) whereby the Clubs would indemnify the Supplementary Fund in respect of 50% of the amounts it has paid in compensation.[267] They believed the best way to achieve a 50:50 sharing of compensation costs should be realized under the existing international regime without revising it. Thus, the International Group was tempted to extend the STOPIA to all parties to the 1992 Conventions and apply TOPIA to parties to the Supplementary Fund Protocol. The International Group also realized that such an arrangement might involve financial exposure at a higher reinsurance level, but in the International Group's view, there was sufficient capacity in the market.[268]

After consulting some relevant industry organizations, inter alia, the OCIMF, the International Chamber of Shipping (ICS) and the International Association of Independent Tanker Owners (INTERTANKO), the International Group developed a revised STOPIA, known as STOPIA 2006 and a second agreement TOPIA 2006. Indeed, as intended by the International Group, the STOPIA 2006 extends its application to pollution damage in states where the Fund Convention 1992 is in force. Under TOPIA 2006, shipowner involved in the incident would indemnify the Supplementary Fund for 50% of the compensation it pays under the Supplementary Fund Protocol.

The STOPIA is a contract (though on a voluntary basis, legally binding agreement) between owners of tankers of 29,548 gross tonnage or less, which are insured against oil pollution risks by P & I Clubs which are members of the International Group and reinsured through the pooling arrangements.[269] It applies to pollution damage in a State for which the Supplementary Fund Protocol is in force, and the maximum amount of compensation payable by owners of all ships of 29,548 gross tonnage or less would be 20 million SDR. According to the statistics provided by the International Group in September 2007, there were 4540 small tankers entered in the International Group and reinsured through the Group's pooling arrangement, and therefore automatically entered into STOPIA 2006, whereas there were still 361 tankers that entered the International Group but not entered in STOPIA 2006 because they are not reinsured through the pooling arrangement.[270]

Although the 1992 Fund is not a party to STOPIA, the STOPIA confers legally enforceable rights on the 1992 Fund of indemnification from the shipowner involved in an incident. The 1992 Fund

[267] 92FUND/A/ES.10/13, SUPPFUND/A/ES.2/7, 1 February 2006, p3.
[268] 92FUND/EXC.37/8, 16 May 2007, p3.
[269] Clause III (B) of STOPIA 2006.
[270] 92FUND/A.12/24, SUPPFUND/A.3/17, 8 October 2007, p3.

will in respect of ships covered by STOPIA, continue to be liable to compensate claimants if and to the extent that the total amount of admissible claims exceeds the limitation amount applicable to the ship in question under the CLC 1992. The 1992 Fund would be entitled to indemnification by the shipowner of the difference between the shipowner's liability under that Convention and 20 million SDR, even if the Supplementary Fund was not called upon to pay compensation in respect of the incident. These voluntary schemes do not affect the legal positions of oil pollution victims under the existing 1992 Conventions, but they provide that the shipowner pays indemnification to the Fund rather than paying extra sums directly to the victims.

So far, there has been one incident that involves a vessel entered in the STOPIA 2006, being the Solar 1 incident.[271] On 11 August 2006, the Philippines registered tanker Solar 1 sank at some 10 nautical miles south of Guimaras Island, Republic of the Phillipines, and spilled approximately 2000 tonnes of industrial fuel oil. The tanker is of 998 Gross Tonnage, thus its limitation amount according to the CLC 1992 would be 4.51 million SDR. However, the owner of the tanker is a party to the STOPIA 2006 whereby its limitation amount is raised to 20 million SDR on a voluntary basis. In addition, the Fund continues to compensate claimants if and to the extent that the total amount of admissible claims exceeds the limitation amount applicable to the Solar 1 under the Convention. This is the first incident where STOPIA 2006 has applied and the 1992 Fund receives reimbursement from the shipowner's Club. It is, however, at this stage still difficult to predict whether the amount of compensation payable in respect of the incident will exceed the STOPIA 2006 limit of 20 million SDR. Therefore, it is unknown at this stage whether the 1992 Fund will be called upon to pay compensation in excess of that limit.[272]

VIII. Concluding remarks

So far the historical development and some most recent changes of the international regime on civil liability for marine oil pollution damage has been examined. The international conventions were amended several times, particularly, in 1992 and 2000 whereby the compensation provided through the international regime was substantially increased and the scope of compensation was expanded. This is partially due to the occurrence of new major oil spill incidents with higher damage, showing the inadequacy and other shortcomings of the existing regime. This led to the latest change of the international regime, the third tier of compensation provided under the Supplementary Fund. As a result, the compensation under the international regime has reached around USD 1 billion. But whether such an amount is sufficient remains to be assessed in the light of new accidents.

The international regime has not been able to reach its goal of sufficient compensation to oil pollution victims, but some considered an international regime is better than nothing at all. So it would be better to keep the international conventions and make modifications on the basis of the existing system than abolishing the old system and adopting new system, which will be more time consuming. Moreover, it should be noted since the original adoption of the two conventions, the situations have changed. It is thus considered "necessary for the international oil pollution

[271] 92 FUND/EXC.40/11, 13 March 2008, p7-8.
[272] 92 FUND/EXC.40/6, 14 February 2008.

compensation regime to respond and adapt to changing circumstances and to new political and social expectations".[273] Take for instance the scope of compensation. Originally it only covered actual oil pollution; in the 1992 Conventions it was extended to include compensation for economic losses directly linked to oil pollution. This reflects the changing expectations of the government and the claimants.[274] Moreover, in order to make the changes easy and avoid the lengthy ratifying procedure, the IMO adopted the tacit acceptance procedure which has facilitated the process of adaptation of the International Conventions.

One of the major issues during the legislative changes has always been the balance striking between the shipping and the oil industry. It was due to the prospect of oil industry contributing to the compensation regime that the shipowners agreed to assume strict liability under the CLC 1969. Moreover, the oil industry provided certain relief to the shipowner in the Fund Convention 1971. However, it seems the balance has somewhat changed in the 1992 Conventions, as the relief provided to the shipowner through the Fund was abolished, although the liability of the shipowner was higher than the CLC 1969. But at least the compensation under the CLC and the Fund Convention was increased simultaneously in both the 1992 and 2000 Protocols. This balance was again broken in the 2003 Protocol whereby the oil industry has to contribute twice to the international regime, while the shipping industry seems to contribute only to one layer of compensation under the CLC. As a reaction, the International Group has increased on a voluntary basis the financial limits for small tankers. There was not accurate description on such a balance until in the most recent work of the Working Group which explained the intended balance was to reach a 50 – 50 % contribution to the pollution costs from both industries.

A second point, as pointed out by some scholars, is that the political impetus behind the debate should be recognized. E.g. the extension of geographical scope of compensation to include EEZ was argued to be an increase of the right over the EEZ which was recognized by the 1982 UNCLOS. However, the states considered it an opportunity to claim for supposed interference with deep sea fishing, rather than as effecting an intrinsically worthwhile amendment to the liability regime. An observation was made that the arguments given by delegations at the conference and why they pressed for one particular system than the other all lied in their domestic politics.[275]

One obvious example is the European coastal states, such as France that has suffered so many catastrophic oil spills, it was always active in lobbying for a high compensation amount. Since the 1990s, having suffered from some serious oil pollution incidents, the European Union plays a more active role and even works as the driving force in the international arena to promote more changes to the international system on civil liability for marine oil pollution. It was probably due to the activism of the EU that the scope of application of the international regime on compensation for marine oil pollution was expanded, and the level of compensation amount was increased in the 2000 Protocols. It is again due to the efforts of the EU that the Supplementary Fund was promoted in 2003, and thanks to the activism of the EU states, it has finally come into force in March 2005.

[273] Jamieson, D., The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, the IOPC Funds, 2003, p6.
[274] Jamieson, D., 2003, p6.
[275] Abecassis, D., 1983, p54.

Although the US is a major shipping power and an important oil import country that would have been a great contributor to the Fund Convention, it did not ratify any of the Conventions, but adopted its own regime in 1990 due to the public and political pressure especially after witnessing the disastrous oil pollution incident of Exxon Valdez. This led to the failure of the 1984 Protocols. However, the need for improving the international compensation regime was acknowledged by the whole world and it was realized in 1992 via the 1992 Conventions.

The review of the international oil pollution compensation regime is continuing, including the discussion on the possibility of extending liability to other parties involved in the oil transport at sea besides the shipowner, such as charterers or operators, who might be directly responsible for causing oil spills and might therefore be more accurately identified as the "polluter".[276]

According to Dr. Reinhard Ganten, who was director of the 1971 Fund between the year 1978 and 1984, the scheme of an international compensation fund could operate successfully only with a large membership spread over all continents and a fair distribution of the burden of contributions.[277] The increase of membership of the 1971 Fund and 1992 Fund has indeed indicated that the international regime on civil liability and compensation for marine oil pollution has worked reasonably well, it is proved to be justified and achieved the necessary results to cover pollution damage also of catastrophic dimensions.[278] However, even the most perfect system needs to adapt to changing circumstances. Hence, in 1979 and 1986, the amount of total compensation available under the 1969 and 1971 Conventions, bringing the Fund's limit to a level which appeared adequate in the light of the experience of the major incidents in which the Fund had been involved at that time. Further amendments to the Fund Convention were achieved in 1992 whereby the limit was raised again to a higher level.

With the amendments of international conventions, the positions of the relevant parties have changed as well. The shipowner's liability is increased to an ever higher amount in 1992 and again 2000. This was counter-balanced in the sense that his right to limit liability is reinforced under the 1992 regime and it has become almost impossible to deprive the shipowner of his right of limitation.

The further strengthened channelling provision in the CLC 1992, according to De la Rue, was to avoid scope for the shipowner's right of limitation to be circumvented by the expedient of bringing action against any of his servants or agents who might be responsible for the incident, and whom he might be bound (either legally or in practice) to indemnify. Another reason was that if joint and several liability of multiple parties could be avoided, this would enable more efficient use to be made of available insurance capacity, and higher figures to be set for the owner's liability limits. Hence, the wider channelling provisions introduced in CLC 1992 sent hand in hand with the higher liability limits which the CLC 1992 introduced.[279]

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[276] Abecassis, D., 1983, p36.
[277] Ganten, R., Setting up the Organisation, in: The IOPC Funds' 25 Years of Compensating Victims of Oil Pollution Incidents, IOPC Fund, 2003, p60.
[278] Ganten, R., 2003, p61.
[279] De la Rue, C. and Anderson, C., 1998, p656.

Moreover, the limitation of liability for the shipowners under the marine oil pollution compensation regime mirrors in various respects the principal international regime in force at the time governing the limitation of liability for maritime claims, being the 1957 Limitation Convention and the 1976 LLMC. The same pattern was reflected in the change from the 1969 to CLC 1992 and the change from the 1957 to 1976 LLMC in a way that higher amounts were adopted and substantially lower risks to shipowners of losing the limitation right.[280]

[280] See also De la Rue, C. and Anderson, C., 1998, p100.

Chapter 6 The US Regime on Civil Liability for Marine Oil Pollution

I. Introduction

The US oil consumption is nearly three times its production, which makes it more dependent upon foreign suppliers.[1] The US has been a net importer of oil since the 1950s, and today it is the largest oil net importer in the world. In 2006, the US had net imports of 12.2 million gallons of oil per day, more than twice as much as Japan and over three times as much as China, the world's next largest importers.[2] The transport of oil into the United States is primarily carried out by sea though vessels.[3] In addition, also a substantial domestic movement of oil takes place. This includes both transport of crude oil from Alaska to the lower 48 states and transport of oil products along the east, west, and gulf coasts of the US.[4] The cumulative oil spill data in the US waters indicate that the number and volume of oil spills have a close relationship with waterborne oil movements.[5]

The US has a long coastline (more than 20 states in the US are coastal states), and hence the frequent oil movement by sea has made the US exposed to potentially large risks of marine oil pollution. As a result, an analysis of how the US laws are formulated to deal with the oil pollution problem is particularly important not only for US vessels or US oil cargo owners, but also to other parties who might be involved in the oil transportation activities and oil trade as well.

As far as civil liability for marine oil pollution damage is concerned, the US has not adopted any of the existing international conventions, although it has played a very active role during the debates concerning the establishment of the international conventions of 1969/1971 and the 1984 Protocols. The first federal legislation in the US dealing particularly with marine oil pollution was the Oil Pollution Act 1924.[6] Civil liability for marine oil pollution was not introduced in the US legislated law until the enactment of the Clean Water Restoration Act 1966, which amended the Oil Pollution Act 1924. However, none of these federal laws was considered a success in dealing with oil pollution liability. When the Torrey Canyon incident happened in 1967, in addition to the efforts to contribute to the international regime on civil liability for marine oil pollution, the US government also strengthened its domestic measures aiming at prevention of oil pollution. More federal legislation was implemented, among which the most influential ones are the Water Quality Improvement Act of 1970 and the subsequent Clean Water Act of 1977, the

[1] Data from a study carried out by the National Research Council, Oil in the Sea III: Inputs, fates and Effects, National Research Council of the National Academies, 2003, p8-10.
[2] United States Government Accountability Office Report to Congressional Committees, Maritime Transportation, Major Oil Spills Occur Infrequently, but Risks to the Federal Oil Spill Fund Remain, GAO-07-1085, September 2007, p6.
[3] Ramseur, J., Oil Spills in U.S. coastal Waters: Background, Governance, and Issues for Congress, 25 October 2006 (last updated 24 April 2007), Congressional Research Service, RL33705, p25.
[4] Bovet, D., OPA 90 and the Shipowner, Proceedings 1993 International Oil Spill Conference, 29 March- 1 April, 1993, Tampa, Florida, p733. It is also projected that the coastwise oil movement is expected to decline as a result of the depletion of the Alaska North Slope reserves, while the oil movement from overseas will increase.
[5] Kim, I., 2002, p197.
[6] However, the US legislation concerning water pollution in general has started since 1886 with the New York Harbor Act, which was later extended in the Rivers and Harbors Act 1899.

Deepwater Port Act of 1974, the Trans-Alaska Pipeline Authorization Act of 1973, and the Outer Continental Shelf Lands Act Amendments 1978.

These legislations were criticized to be patchwork which did not tackle the problems caused by marine oil pollution in an effective way. However, no substantial change was made until Exxon Valdez incident happened in 1989 whereby the public arouse was escalated. Under the political pressure to come with a scheme to deal with the oil pollution problem, the US government adopted in 1990 the Oil Pollution Act (OPA).

Different than the international conventions, the US OPA does not deal merely with the civil liability and compensation, but presents rather a more "comprehensive" regime, incorporating different aspects of oil pollution. It covers the prevention of, response to and compensation for marine oil pollution; the liabilities imposed by the Act often include civil, criminal and administrative liabilities. However, the issue relevant to this thesis is the aspect of civil liability and compensation contained in the "comprehensive" US legislation. Hence below it is mainly this aspect of OPA that will be discussed in further detail.

In this chapter, the most important federal legislation concerning oil pollution liability in the US, being the Oil Pollution Act 1990 will be examined. In order to fully understand the legislative situation in US, the US legal history will be examined first in order to see how the problem of compensation for marine oil pollution has been dealt with prior to 1990, and what role OPA plays in the US legislation. Then the questions on how the OPA was enacted into law and its influences will be examined.

II. Legislative history of US laws on oil pollution

1. Prior to 1967

1.1 The Oil Pollution Act 1924[7]

In most countries, prior to 1967, there were few differences between the law governing claims for marine oil pollution damage and that relating to any other maritime tort claims in general.[8] However, the US had already by that time legislations dealing specifically with marine oil pollution, being the Oil Pollution Act of 1924.

The Oil Pollution Act of 1924 was the first federal statute designed specifically to regulate the discharge of oil from vessels into the coastal waters of the United States.[9] It contains provisions that prohibited the discharge of oil (carried as fuel or cargo) and it imposed a fine of $500 to $2500 and/or imprisonment of 30 days to one year on those in violation of the Act as a sanction.

[7] Act of 7 June 1924, Pub. L. No. 68-238, 43 Stat.604, codified at 33 U.S.C.§431-437, repealed by the Water Quality Improvement Act in 1970.
[8] De la Rue, C. and Anderson, C., 1998, p8.
[9] For more details of the Oil Pollution Act 1924, see Healy, N. and Paulsen, G., Marine Oil Pollution and the Water Quality Improvement Act of 1970, Journal of Maritime Law and Commerce, 1970, Vol.1, No.4, p537 – 538.

1.2 Federal Water Pollution Control Act of 1948 (FWPCA)

In 1948, US Congress adopted the Federal Water Pollution Control Act (FWPCA).[10] The purpose of the Act was "to enhance the quality and value of our water resources, and to establish a national policy for the prevention, control and abatement of water pollution".[11] However, it specifically provided that the primary responsibilities and rights of the states to prevent and control water pollution were recognized, preserved and protected. Thus the primary focus of the FWPCA was on the enhancement of state and local water pollution prevention programmes.[12]

1.3 The Clean Water Restoration Act of 1966

As mentioned above, the Clean Water Restoration Act of 1966[13] has amended the Oil Pollution Act of 1924 and has introduced for the first time civil liability for oil pollution in the US federal law.[14] It has broadened the geographic scope of application under the Oil Pollution Act of 1924 to prohibit the discharge of oil upon adjoining shorelines, as well as into or upon the navigable waters of the US.[15] It provided that anyone discharging, or permitting the discharge of oil from a vessel into or upon US navigable waters was required to remove it "immediately" from such waters and their adjoining shorelines. If the violator fails to do so, the Secretary of the Interior is authorized to arrange such removal. The offender is then liable to compensate the removal costs incurred by the authority to the extent that is reasonable[16] and he is subject to a higher amount of fine.[17] The fine is up to $2500 and imprisonment of one year, the vessel is liable for a penalty of up to $10,000.[18]

However, the liability regime established by the Clean Water Restoration Act of 1966 was considered not effective as the polluter was liable only when the spill was the result of willful or gross negligence, and it did not even apply to negligence in the common sense which was very often the cause of a pollution incident.[19] Moreover, it only compensated the government cleanup costs whereas the private parties who often suffer the damage as a result of the oil spill were not entitled any compensation under this Act.[20]

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[10] Act of 30 June 1948, Pub. L. No. 80-845, 62 Stat.1155, originally codified at 33 U.S.C.§466(a)-466(g), but substantially amended and renumbered by Federal Water Pollution Control Act Amendments of 1972 and Clean Water Act Amendments of 1977.
[11] 33 U.S.C.§1005 (1964) at 466 (b).
[12] 33 U.S.C.§466(a) and (b). De la Rue, C. and Anderson, C., 1998, p9.
[13] Pub. L. No. 89-753, 3 November 1966, 80 Stat. 1252.
[14] De la Rue, C. and Anderson, C., 1998, p9.
[15] 33 U.S.C.§433(a) (Supp. IV, 1969).
[16] 33 U.S.C.§433(b).
[17] In Oil Pollution Act of 1924, 33 U.S.C.§434, it was originally provided that violators were subject to a fine of $500 to $2500. In its 1966 amendment, 33 U.S.C.§434(b) the penalty was maximum $10,000.
[18] 33 U.S.C.§433 – 434.
[19] In 33 U.S.C.§432 (3), "discharge" was defined as any "grossly negligent or willful spilling, leaking, pumping, pouring, emitting or empting of oil". For a critical analysis of the Clean Water Restoration Act 1966, see Kiern, L., Liability, Compensation and Financial Responsibility under the Oil Pollution Act of 1990: A Review of the First Decade, Tulane Maritime Law Journal, Vol.24, 2000, p502.
[20] For criticism in this respect, see, inter alia, De la Rue, C. and Anderson, C., 1998, p9.

2. Torrey Canyon – mid-1970's

2.1 Actions of the US government

When the Torrey Canyon incident occurred in 1967, the US government realized that the United States was not immune to oil spill risks, and the serious problems caused by oil pollution was not adequately addressed by the existing legislations.[21] The US government took steps to remedy the inadequacy of the existing laws concerning marine oil pollution. The actions of the US government are twofold. At the international level, one important step was to send a delegation to participate in the diplomatic conference held in London in 1969, which resulted in the adoption of the Intervention Convention and the CLC 1969. Both conventions were signed by the US government, but the US Senate has ratified only the Intervention Convention and refused to ratify the CLC 1969.[22] At the domestic level, the US Congress did not want to wait for the resolution of the international convention, and it was determined to adopt "tough" oil spill legislation.[23] Unlike many other states (e.g. UK and Canada) that postponed the adoption of domestic legislation while waiting for the result of the international convention, the US never delayed for similar reason the efforts to develop domestic legislation.[24] Since the occurrence of the Torrey Canyon oil spill, the US Congress sought to address the issue of liability and compensation for marine oil pollution through a series of domestic laws.[25]

2.2 Domestic legislative actions: Water Quality Improvement Act of 1970

As mentioned in the previous section, aware of the oil spill risks as revealed by the Torrey Canyon oil spill, the US government did not wait for resolution of the international convention, but continued the efforts to develop domestic law. One of its major actions was the adoption of the Water Quality Improvement Act (WQIA) in 1970.[26] The WQIA 1970 was initiated by the Senate in December 1967 (a few months after the occurrence of Torrey Canyon incident), and the House of Representatives could quickly reach an agreement with the Senate and this was signed into law by President Nixon on 3 April 1970.[27]

The WQIA imposed strict liability on the owner, operator and demise charterer of the vessel from which oil was discharged.[28] Section 11 of the WQIA covered cleanup costs incurred by the US Government. The natural resource damage restoration was also covered, and this was considered

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[21] Morgan, J., The Oil Pollution Act of 1990: A Look at Its Impact on the Oil Industry, Fordham Environmental Law Journal, 1994, Vol.6, p2.
[22] Healy, N. and Paulsen, G., 1970, p561-562.
[23] Healy, N. and Paulsen, G., 1970, p553.
[24] Healy, N. and Paulsen, G., 1970, p554.
[25] Numerous articles provide detailed analysis of the US legislation at the time. See, e.g. Mendelsohn, A. and Fidell, E., Liability for Oil Pollution – United States Law, Journal of Maritime Law and Commerce, Vol.10, No.4, 1979, p475; Milstein, Enforcing International Law: United States Agencies and the Regulation of Oil Pollution in American Waters, Journal of Maritime Law and Commerce, Vol.6, 1975, p273.
[26] Pub.L.No.91-224, codified at 33 U.S.C. §1161 et seq. It has amended the FWPCA and repealed the Oil Pollution Act of 1924.
[27] For a detailed discussion on the legislative actions of the US government following the Torrey Canyon incident, particularly those related to the Water Quality Improvement Act 1970, see Paulsen, G., The Water Quality Improvement Act of 1970, Journal of Maritime Law and Commerce, 1970, p551-561.
[28] The "owner or operator" was defined in §11 (a) (6) of the WQIA to include "any person owning, operating or chartering by demise, vessel."

novel at the time.[29] However, there were no provisions on the compensation for damages incurred by private parties.

The amount of the liability was limited to $100 per gross ton or $14 million whichever is less.[30] It is interesting to notice that this amount is not higher than the liability limits under the CLC 1969, being $125 per gross ton or $14million whichever is less. Therefore, it confirms that the low financial limit adopted in the CLC 1969 is not the main reason for the US government to refuse to ratify the convention. The shipowner or operator would lose such right to limit his liability and have to pay the full amount of costs if the discharge "was the result of willful negligence or willful misconduct within the privity and knowledge of the owner".[31]

The WQIA also contains provisions concerning financial responsibility.[32] All vessels of over 300 gross tons (including barges) which use any American port or place or the navigable waters of the US were required to establish and maintain evidence of financial responsibility up to the amount of liability limits prescribed in WQIA. The acceptable forms of financial responsibility include evidence of insurance, surety bonds and qualification as a self-insurer.[33] Direct actions against insurers or other persons providing the required evidence of financial responsibility were allowed.[34] In such a direct action, the claimant could rely on all the defenses that they could have invoked against the insured.

In addition, the WQIA established a revolving fund of up to $35 million to effectuate cleanup, to pay for removal costs incurred by the owner or operator where a statutory defense was established, and to pay administrative costs to federal agencies. Although the WQIA was criticized for its failure to deal with water pollution in a comprehensive manner,[35] the Act established a liability framework which remained the model for subsequent oil pollution laws.

Shortly thereafter, the FWPCA Amendments of 1972 were passed, mainly to introduce water quality standards. However, as far as liability system is concerned, they made few substantive changes, and the only major change was to bring hazardous substances into the existing regulatory regime for oil spills.[36] Significant changes were introduced by the Clean Water Act 1977, which will be discussed below.

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[29] For the comments on WQIA 1970, see Jones, W., Oil Spill Compensation and Liability Legislation: When Good Things Don't Happen to Good Bills, Environmental Law Reporter, Vol. 19, 1989; Straube, M., Is Full Compensation Possible for the Damages resulting from the Exxon Valdez Oil Spill? Environmental Law Reporter, Vol. 19, p10338-10350.

[30] This provision on the limitation of liability, according to De la Rue, was a response to the industry concerns regarding the availability of insurance coverage to meet liability requirements. P23.

[31] CWA §11 (f)(1).

[32] CWA§11 (p).

[33] CWA §11 (p)(1).

[34] CWA §11 (p)(2) and (3).

[35] See e.g. Gilmore, G. and Black, C., The Law of Admiralty (2nd edition), 1975, p827 – 828. "The Act is as soft and spineless in its drafting as it is muddle-headed in its policy. If it is destined to remain on the books, the courts will have their work cut out for them in making some sort of sense out of its vague, ambiguous and contradictory provisions." However, there have been different opinions on the WQIA. E.g., Davis, M., The Ports and Waterways Safety Act of 1972: An Expansion of the Federal Approach to Oil Pollution, Journal of Maritime Law and Commerce, Vol.6, No.2, January 1975, p249-257. "The Water Quality Improvement Act of 1970 is the most comprehensive oil pollution legislation to date".

[36] De la Rue, C. and Anderson, C., 1998, p24.

2.3 Actions at international level

The process for ratification of international conventions in the US is very complicated since it requires first the approval of the government, then the agreement of the Senate to ratify the conventions, followed by the adoption of legislation by the US Congress, at last the approval of the President.[37]

The US government sent a delegation to the 1969 conference and signed the CLC 1969. The US delegation also showed support for the international regime at the 1969 conference. However, the situation seemed different when the signed CLC was sent to the Senate for discussion. At the 91st Congress held between 1969 and 1970, the Senate raised most opposition to the ratification of the CLC, despite the fact that many considered that it would be attractive for the US.[38]

However, the Senate decided not to ratify the CLC 1969. Some reasons given at the Senate hearing include: the CLC offered lower compensation to the government since the liability limit of $14 million as prescribed in the WQIA was only used to compensate government cleanup costs, whereas the $14 million in the CLC was meant for both private party and the state.[39] Moreover, there was the opinion that refusal to ratify the CLC would give the US the bargaining power to effect the envisaged fund convention.

One question arises whether the too low limitation amount adopted in the CLC was the real reason for the US government not to ratify the convention.[40] This may require a close look at the debate during the 1969 conference: when the UK delegation proposed $125 dollar per ton with a ceiling of $14 million (which turned out to be the finally adopted amount),[41] the US delegation did not make any attempt to strive for a even higher amount. It showed immediately support for such a proposal in the hope for a compromise solution.[42] The US delegation even "asked delegations which could still not accept the proposal at least to refrain from opposing it and thus end all hope for a positive outcome."[43] The attitude of the US delegation was more in favor of

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[37] For details on the legislation process in the US, see Johnson, C., How Our Laws Are Made, House of Representatives Document 108-93, 108th Congress, 1st Session, 20 June 2003.

[38] President Nixon recommended prompt ratification of the CLC 1969 in his message to Congress on 24 May 1970. In addition, many scholars at the time believed it would be beneficial for the US to join the international regime rather than sticking to its domestic law. See for instance, Wood, L., An Integrated International and Domestic Approach to Civil Liability for Vessel-Source Oil Pollution, Journal of Maritime Law and Commerce, 1975, Vol.7, p2. He was optimistic that when the two international conventions come into force, the US will ratify the conventions. According to him, international conventions cover only a fraction of oil pollution, vessels carry petroleum as cargo. The US regime should cover all sources of oil pollution – comprehensive (p2). He advocated US ratification of the international compensation regime despite its flaws, the domestic law makes interstitial adjustment where conventions are inadequate to protect the US interest (p3 and 22). See also Doud, A. L., Compensation for Oil Pollution Damage: Further Comment of the Civil Liability and Compensation Fund Conventions, Journal of Maritime Law and Commerce, 1973, Vol.4, p542.

[39] It can be rebutted that this is a purely one-sided view since private parties who suffer damage may also need protection and compensation, which they would not be able to pursue under the WQIA. To the contrary, some people believed it was precisely because of this reason that the CLC were attractive to the US since the CLC provides for compensation for private parties. See Wu, C., 1996, p217.

[40] See e.g. Muskie, E., Correspondence, Journal of Maritime Law and Commerce, Vol.3, 1972, p427-428. See also Federal Water Pollution Control Act Amendments of 1977: Hearings before the Subcommittee on Environmental Pollution of the Senate Committee on environment and Public Works, 95th Congress, 1st session, 1977, p518.

[41] See LEG/CONF/C.2/WP.35, 24 November 1969, OR 1969, p596.

[42] LEG/CONF/C.2/SR.17, OR 1969, p727-728.

[43] LEG/CONF/C.2/SR.17, OR 1969, p728.

coming up with at least some international convention. Therefore, the low limitation amount in the CLC was at least not the major concern of the US government at that time.

When the CLC was submitted to the Senate, the fear from the Senate prevailed that the international convention might prevent individual states from establishing their own liability and compensation laws for marine oil pollution within their jurisdiction. Most state representatives had the strong belief that individual states were in the best position to determine the most effective way to protect their citizens in environmental matters.[44] Moreover, the problem of oil pollution was considered, particularly by the US Congress, too urgent to wait for the formulation of an international convention.[45] Given the strong economic position of the US, it was widely felt that the country could act independently of other nations in formulating its oil spill policy.[46] This might explain the determination of the US Congress to enact unilaterally its own domestic law instead of participating in the international convention.

At the 1971 conference, the US delegation was instructed to seek a minimum limit of $50 to $60 million.[47] The ambitious goal of the US delegation was not achieved at the 1971 conference. The compensation limit adopted in the Fund Convention 1971 was approximately $32.4 million in the 1973 currency.[48] During the hearing in 1973 concerning the ratification of the two conventions, despite the fact that the compensation amount adopted in the convention did not reach the desired level of the US, the US Coast Guard as the competent authority and the President expressed favorable views concerning the two conventions. On the other hand, the coastal states of the US disapproved the ratification of the two conventions out of the fear that they would take precedence over state laws.[49]

Therefore it seems the US Senate had strong political power in promoting the policy to give priority to domestic law. It is due to this reason the CLC 1969 and Fund Convention 1971 were never ratified by the US. It therefore seems a paradox that the US delegation at the 1969 conference made firm statement towards an international regime whereas in reality only its domestic laws were strengthened and the international conventions were not ratified by the US.

3. Mid- 1970's – prior to Exxon Valdez (1989)

3.1 Legislative history

Since the 1970s, realizing the inconsistency of federal legislation and the complexity caused by overlapping state laws, the US Congress decided to adopt comprehensive oil spill measures to combine state and federal laws into one uniform national program.[50] Both the Senate and the House of Representatives have passed legislation proposals aiming at creating such a

[44] De la Rue, C. and Anderson, C., 1998, p22.
[45] Healy, N. and Paulsen, G., 1970, p554.
[46] De la Rue, C. and Anderson, C., 1998, p22.
[47] Senate Muskie's letter of 17 November 1971 gave instructions to the US delegation to the 1971 conference. The letter was published in Journal of Maritime Law and Commerce, 1972, Vol.3, p427.
[48] See Wu, C., 1996, p220.
[49] Wu, C., 1996, p219-221.
[50] De la Rue, C. and Anderson, C., 1998, p53.

comprehensive uniform national system. However, due to the occurrence of a series of environmental catastrophes caused by hazardous substances, the attention of the Congress was diverted to the discussion of a comprehensive environmental response, compensation and liability system.[51] Thus the adoption of strengthened oil spill legislation was slowed down.[52] Therefore, the oil pollution liability regime in the US continued to be found in several statutes.

On the other hand, at the international level, the US delegation was very active at the 1984 London diplomatic conference. They have succeeded in reaching most of their goals through the negotiation of the 1984 Protocols and the US delegation even signed the Protocols. However, when the Protocols were sent to the Senate for ratification, again, they encountered lots of opposition. As a result, the 1984 Protocols were never ratified by the US.[53] The debate concerning the ratification of the 1984 Protocols will be analyzed below in the legislative activities after the occurrence of Exxon Valdez incident since it was only then the US Congress debate really focused on this issue and it has become crucial for the decision on a comprehensive oil pollution legislation as well.

3.2 Major domestic legislations

Since the 1970's (prior to the adoption of OPA), civil liability and compensation for marine oil pollution in the US was governed by at least four separate statutes: the Clean Water Act (CWA) 1977 (amending the FWPCA),[54] the Trans-Alaska Pipeline Authorization Act (TAPAA) 1973,[55] the Deepwater Port Act (DPA) 1974[56] and the Outer Continental Shelf Lands Act (OCSLA) Amendments 1978.[57] The CWA provides for recovery of the cleanup costs and damages incurred by the government, but did not grant private parties the recovery of damages. The other three statutes addressed the issue of oil pollution liability and compensation within certain geographic areas of the US or within the framework of some specific activities.

The main provisions in these four statutes on liability and compensation for vessel-source marine oil pollution are summarized in the following table:

Table: Pre-OPA legislations on civil liability for marine oil pollution in the US

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[51] De la Rue, C. and Anderson, C., 1998, p54. The Congress originally decided to meet in 1980 to consider the new oil spill legislation, but the meeting of the Congress actually focused on the creation of a parallel regime for the cleanup of hazardous substances which eventually became the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA). Overwhelmed by public pressure to enact CERCLA, the oil spill provisions in the original bill were dropped, although assurances were given to reconsider them in the next Congress.

[52] For a full discussion of the progress of oil spill legislation during this period, see Jones, W., Oil Spill Compensation and Liability Legislation: When Good Things Don't Happen to Good Bills, Environmental Law Reporter, 1989, Vol.19, p10333.

[53] There were again many scholars pointed at the advantages for the US to join the international regime, e.g. Holt, M. and Johnson, L., Oil Pollution Act of 1990: Cure, Catalyst, or Catastrophe, International Oil Spill Conference, 1991, p1; Zimmermann, J., Inadequacies of the Oil Pollution Act of 1990: Why the United States Should Adopt the Convention on Civil Liability, Fordham International Law Journal, Vol.23, 2000, p1517.

[54] Pub. L. No.95-217, codified at 33 U.S.C.§1251-1376.

[55] Pub. L. No.93-153, codified at 43 U.S.C.§ 1651-1656.

[56] Pub. L. No.93-627, codified at 33 U.S.C.§1501-1524.

[57] Pub. L. No.95-372, codified at 43 U.S.C.§ 1331-1356, 1801-1866.

	Clean Water Act (CWA) 1977	Trans-Alaska Pipeline Authorization Act (TAPAA) 1973	Deepwater Port Act (DPA)1974	Outer Continental Shelf Lands Act (OCSLA)Amendment 1978
Basis of liability	Strict liability, joint and several	Strict liability, joint and several	Strict liability, joint and several	Strict liability, joint and several
Liable party	Owner, operator or person in charge of any vessel from which oil is discharged	Owner and operator of vessels operating between the Trans-Alaska pipeline terminals and US ports	Owner or operator of vessels serving deepwater ports	Owner and operator of a vessel transporting oil from offshore facilities
Recoverable damages	Cleanup costs; Natural resource damages	All damages including cleanup costs (specifically allow private parties to recover damages caused by oil spills)	Cleanup costs; All damages	Cleanup costs; All damages (first federal statute to authorize recovery of economic losses)
Limitation of liability	Clean up costs up to $150 per gross ton or $250,000 whichever is higher; Recovery costs: no limit	$14 million	$150 per ton or $20 million whichever is less	$300 per gross ton or $ 250,000 whichever is higher; unlimited for federal and state cleanup costs
Financial responsibility	Required up to liability limits	Required up to liability limits	Required up to liability limits	Required up to liability limits
Fund	Section 311 Fund: $35 million	Trans-Alaska Pipeline Liability Fund: $100 million	Deepwater Port Liability Fund: $4 million	Offshore Pollution Fund: $200 million
Financing sources of the fund	Appropriations from the Treasury	5 cent per barrel fee	2 cent per barrel fee	3 cent per barrel fee

3.3 Activity at the 1984 diplomatic conference

One of the major goals of the US delegation at the 1984 diplomatic conference was to increase substantially the compensation amounts in the international regime. They used sufficiently high compensation amounts as a condition to accept the channelling of liability and the unbreakable right of the shipowner to limit his liability.[58] Thus, the US urged for a substantial increase of the shipowner's liability limits to an amount between $ 8 and $10 million for small tankers, above that amount $700 per register ton extra, and maximum liability for the shipowner between $70

[58] LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p317.

and $75 million. As for the Fund, the US considered an amount between $225 and $250 million reasonable.[59] This increase seemed too ambitious at the time and encountered opposition from many other delegations.

Seeing the difficulty reaching agreement on the compensation amount, the US delegation formed a group with some countries with strong lobbying power including Canada and France, and submitted a joint proposal where the US lowered its target to $6 million for small ships up to 10,000 tons, $600 per gross ton for the amount above, and maximum of $60 million.[60] Based on this proposal, the finally adopted amounts were set to be for shiponwer's liability limits: $3 million for small ships up to 5,000 tons, $420 per ton for the amount above, and the maximum amount was $59.7 million; for the Fund: $135 million for basic coverage and $200 million for expanded coverage.[61] It may be interesting to notice that the so-called "small tankers" in the finally adopted CLC refer to those up to 5,000 tons whereas in the US proposal it is twice as this amount. One consequence is that it seems the finally adopted amounts were close to the amount proposed by the US, but when it comes to a large tanker, the larger the tonnage is, the higher the difference in financial limits would be between the US proposal and the 1984 Protocol. Hence, the decision on financial limits is actually a strategic decision, to compromise the request from the US and to take care of other interests as well. The US had originally very ambitious goal for unlimited liability.[62] Of course, the US delegation also realized that such a goal would not be realized at the international level and hence it can be said the US delegation already made concession in lowering its targeted amount of financial limits.

On the other hand, the 1984 Protocols were indeed modified towards the US direction, and the US ratification was even made a necessary condition for its coming into effect. The 1984 Protocols were often considered as a concession from other states to the US with the hope for US ratification. Comparing the US delegation's proposal[63] with the finally adopted 1984 Protocols, it is evident that the US demands for expanded geographic scope of application, definition of pollution damage, and the revision mechanism were almost all satisfied. The increase in limitation of liability was not as high as the expectation from the US, but at least the compensation amounts were increased to a substantial degree compared with the amounts in the original conventions. Therefore, the US delegation has at least to a certain extent achieved its objectives through the 1984 Protocols.

4. Enactment of OPA

4.1 Occurrence of Exxon Valdez

As mentioned before, the US congress has been striving for a comprehensive oil pollution regime since the 1970's.[64] But the legislative process could not proceed because of the

[59] LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p317-318.
[60] LEG/CONF.6/C.2/WP.36, OR 1984, Vol.2, p298-303; LEG/CONF.6/C.2/SR.22, OR 1984, Vol.2, p554.
[61] Assume $1=1SDR, the exchange rate in 1984 is 1SDR=$1.037, see LEG/CONF.6/C.2/WP.36, OR 1984, Vol.2, 302. The same method of calculation was adopted by the US delegation in its joint proposal.
[62] For the analysis of the US desire for unlimited liability, see Wu, C., 1996, p223.
[63] LEG/CONF.6/C.2/SR.1, OR 1984, Vol.2, p317; LEG/CONF.6/C.2/SR.19, OR 1984, Vol.2, p522.
[64] Jones, Oil Spill Compensation and Liability Legislation, Environmental Law Reporter, Vol. 19, 1989, p10333.

divergence in opinions from the Senate and the House of Representatives on a few crucial issues, including the decision to ratify the international regime, which would lead to the preemption of state laws.[65] Although various legislation proposals were submitted from both the Senate and the House of Representatives, no final decision was taken for a long period of time.

The legislative impasse was only broken on 24 March 1989, when the US flag tanker Exxon Valdez ran aground on Bligh Reef in Prince William Sound, Alaska. The tanker carried over 53 million gallons of crude oil and more than 10 million gallons of oil spilled into the sea.[66] This is the largest and most expensive oil spill in US waters to date.[67] While often overlooked, the Exxon Valdez incident was soon followed by some other serious oil spills.[68] These include, inter alia, the World Prodigy oil spill off the coast of Rhode Island in June 1989 and the American Trader spill off the California coast.[69] Thus the series of major oil spills including Exxon Valdez speed up the legislative process and lead to the quick decision of US legislations to come up with a comprehensive oil pollution statute.[70]

4.2 Reaction of the US Congress

After the Exxon Valdez incident, both houses of the Congress reacted quickly with new legislative bills. After hearings in the summer of 1989 and after heated debates, the Senate adopted on 4 August 1989 bill S.686, which proposed the enactment of a single federal statute with high limits of liability supplemented by an oil industry financed fund, and it proposed to enhance federal removal authority and increase civil penalties for marine oil pollution. In the bill S.686, ratification of the 1984 Protocols was rejected, and the Senate was against any federal legislation that would preempt state laws.[71] The federal fund proposed in the bill was up to the amount of $1 billion per incident, which would be available for all removal costs and compensable damages incurred not only by the government, but also by private parties.[72] The contents of this bill remained similar to its original proposal.

The House of Representatives also passed bill H.R.1465 on 9 November 1989 after intense debate and with some dramatic changes compared with the first proposal. The final bill H.R.1465 deleted almost all the provisions which would have preempted state laws in the originally proposed bill, and proposed to impose secondary liability for compensation on the oil cargo owner.

Wood, L. also stated that since late 1974, a federal "inter-agency task force" has been drafting legislation for a comprehensive domestic regime for oil pollution liability. See Wood, L., 1975, p18.

[65] Smith, S., An Analysis of the Oil Pollution Act of 1990 and the 1984 Protocols on Civil Liability for Oil Pollution Damage, Houston Journal of International Law, 1991, Vol.14, p128-129.

[66] NRC, 2003, p11, 14.

[67] Ramseur, J., 2007, p1.

[68] Kiern, L., 2000, p482.

[69] For further discussion on other oil spill incidents than the Exxon Valdez, see Randle, R., The Oil Pollution Act of 1990: Its Provisions, Intent, and Effects, Environmental Law Reporter, 1991, Vol.21, p10119-10120; Kiern, L., 2000, p482.

[70] See De la rue, C. and Anderson, C., 1998, p58; Randle, R., 1991, p10119-10120.

[71] Pending Oil Spill Legislation: Hearings on S.686, S.687, S.1066, and S.1223 before the Subcommittee on Environmental Protection of the Senate Committee on Environment and Public Works, 101st Congress, 1st Session, 1989, p3.

[72] De la Rue, C. and Anderson, C., 1998, p60.

4.3 Main debates

4.3.1 Ratification of 1984 Protocols

On 25 April 1990, the House-Senate Conference Committee began its meetings to resolve the differences between the House and Senate bills.[73] The major debates took place concerning the ratification of the 1984 Protocols and the liability system.

Although there were some opponents to the 1984 Protocols from the House of Representatives, most of the opposition to the 1984 Protocols came from the Senate Conferees.[74] The main obstacle to the ratification of the 1984 Protocols was the preemption issue. The Senate was in general against preemption and ratification of the 1984 Protocols. The House bill contained implementing legislation for the 1984 Protocols, while the Senate bill did not.

The Senate believed that ratifying the 1984 Protocols would leave the states powerless to recover costs of massive oil spills. More specifically, the Senate wanted some assurance that states would be compensated for oil spills that exceeded the limits set forth under the amended CLC and the Fund Convention. On the other hand, the House of Representatives pushed for a comprehensive oil spill bill that would provide a uniform system of liability and compensation, preempting state laws which already addressed such issues.[75]

The main arguments against the 1984 Protocols can be summarized as follows:

First, the role of the Senate in ratifying international conventions should not be circumvented, thus the 1984 Protocols should not be implemented in domestic legislation until the Senate ratifies them.[76] Second, the compensation limits under the Protocols were too restrictive. The Protocols provide compensation for oil pollution victims only under certain circumstances, and there was an upper limit on the compensation amount available.[77] Third, the opponents criticized the 1984 Protocols for the channelling provision which prohibits actions against other potentially liable persons and not compensating natural resource damages. It was even proposed by the Senate that the US should renegotiate the Protocols to accommodate the arguments against their ratification.[78]

On the other hand, major supporters of the Protocols came from the House of Representatives: First, it was argued that the role of the Senate would not be bypassed as there is no requirement that the Senate ratify the international convention before the legislation is enacted to implement the international convention.[79] Second, oil pollution as an international problem in nature

[73] For a summary for the conference debate, see Wilkinson, C., Pittman, L. and Dye, R., 1992, p227-231.
[74] Minutes of the House-Senate Conference on H.R. 1465, the Oil Pollution Act of 1990, 25 April 1990, p32.
[75] Smith, S., 1991, p135.
[76] Smith, S., 1991, p126-127.
[77] Wilkinson ,C., Pittman, L. and Dye, R., 1992, p228.
[78] Minutes of the House-Senate Conference on Title III of H.R. 1465, the Oil Pollution Act of 1990, 28 June 1990, p19.
[79] Minutes of 28 June 1990, p8.

requires an international agreement as an effective solution.[80] Third, the supporters for the 1984 Protocols argued that the effect of the Protocols on federal and state law would be minimal.[81] There is only one type of state law that conflicts with the Protocols, being the statute providing for unlimited liability for oil pollution compensation, however, such unlimited liability will not provide unlimited compensation to the victims due to the limited resources of the tanker owners or operators. Moreover, the enforceability of state law especially against other sovereigns can be weak.[82] On the other hand, if the US ratified the Protocols, the states would still be free to impose civil penalties on the parties responsible for oil pollution and the federal legislation on prevention and operational requirements.[83] Even when some revision of state laws is required, this would be a small price to pay for the benefits of an international solution to the oil pollution problem.[84] Fourth, the compensation amount available can be maximized under the Protocols. The Protocols can provide USD 260 million to compensate the victims, and the amount could be increased to USD 400 million if the US ratified them and started to contribute to the Fund.[85] Fifth, in reaction to the critique concerning the Protocols lack of provision on compensation for natural resource damages, it was argued that the federal and state fund can provide such compensation to fill in the gap.[86]

4.3.2 Pre-emption of state laws

The issue on pre-emption of state laws has been the primary obstacle that frustrates the adoption of a federal oil pollution legislation since the 1970's and it was the main reason for the US Senate to reject the 1969/1971 regime, and again it was the center of debate when it came to the decision on whether to ratify the 1984 Protocols or not.

The federal laws prior to OPA have always adopted provisions on non-preemption of state laws. The CWA (and its predecessor the WQIA 1970) and the TAPAA, DPA, OSCLA have all included a specific provision that confirms the non-preemption of state laws.[87]

The issue of (non-)preemption of state law was also the major debate between the House of Representatives and the Senate in the legislation process towards a comprehensive scheme. Although there were debates within both the House and the Senate respectively on the pre-emption issue and despite some dissenting opinions, traditionally, the House has adopted the approach that federal oil pollution legislation should preempt state laws to establish a clear and predictable legal and regulatory framework; the Senate has taken the position that any state wishing to impose a greater degree of protection for its own resources and citizens is entitled to

[80] Minutes of 25 April 1990, p18.
[81] Wilkinson, C., Pittman, L. and Dye, R., 1992, p229.
[82] Minutes of 28 June 1990, p10.
[83] Minutes of 25 April 1990, p5.
[84] Minutes of 25 April 1990, p17-18.
[85] Minutes of 25 April 1990, p18.
[86] Wilkinson, C., Pittman, L. and Dye, R., 1992, p231.
[87] For more discussion on the federalism issue, see Peter Swan, American Waterways: Florida Oil Pollution Legislation makes it over First Hurdle, Journal of Maritime Law and Commerce, Vol.5, No.1, October 1973, p77-110.

do so.[88] Such a debate was escalated and exemplified in the legislative activities prior to OPA. In the proposed Senate Bill S.686, Senator Mitchell strongly opposed federal legislation preempting state spill liability. He considered the Exxon Valdez spill "conclusive evidence against pre-empting state law" as oil pollution victims could not receive full compensation under the then existing federal legislation or the international conventions.[89] When the bill H.R.1465 was first considered by the House of Representatives, it called for federal preemption of state liability laws, but preserved the rights of the states to establish compensation funds for the payment of removal costs and damages and to impose fines and penalties.[90] Required by the need to accelerate the legislation actions as intensified by the Exxon Valdez, the House of Representatives and the Senate quickly reached a compromise agreement. The House has deleted almost all preemption provisions in the finally adopted version of bill H.R. 1465, and the OPA 90 was adopted to preserve the principle of non-preemption of state law.[91]

4.4 Reaching agreement and adoption of OPA

After intensive discussion, the Conference report was adopted unanimously on 2 and 4 August 1990 by the Senate and the House respectively. The provision in the House bill that would make the cargo owner secondarily liable for removal costs was eliminated, but the higher limitation amount in the House bill was retained.

Ironically, when President Bush signed the Oil Pollution Act of 1990 on 18 August 1990, in the Signing Statement, President Bush still urged the Senate to give immediate consideration to the ratification of the international Protocols.[92] However, this was never realized.

5. Evaluation of the legal history

The legislative history of the US oil pollution law shows that one distinctive feature of the US oil pollution legislation is that it has always been different than the regime at international level. In the beginning, when the other countries had no special regime on compensation for marine oil pollution damage, the US has already established such a special regime in the national law, which can be traced to the Oil Pollution Act of 1924 and the FWPCA of 1948. Although these regimes were confronted with various critiques, one has to admit that compared with the situation in most other countries where there is no special regime on marine oil pollution as such, but mainly general principles of tort law or maritime law could apply, the US with a separate regime on marine oil pollution was relatively advanced.

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[88] Corbett, C. and Bovet, D., Comprehensive Oil Spill Liability and Compensation Legislation, Proceedings 1989 Oil Spill Conference, 13-16 February, 1989, San Antonio, Texas, p513-514; De la Rue, C. and Anderson, C., 1998, p54.

[89] Pending Oil Spill Legislation: Hearings on S.686, S.687, S.1066, and S.1223 before the Subcommittee on Environmental Protection of the Senate Committee on Environment and Public Works, 101st Congress, 1st Session. 3 (1989), opening statement of Hon. George Mitchell.

[90] H.R.1465, 101st Congress, 1st Session, title III, 135 Congress Record, H8247, daily ed. 9 November 1989.

[91] More discussion on this provision in the OPA which is often referred to as savings clause (33 U.S.C.§2718), see Johnston, S., Is Ordinary Negligence Enough to Be Criminal? Reconciling United States v. Hanousek with the Liability Limitation Provisions of the Oil Pollution Act of 1990, University of San Francisco Maritime Law Journal, Vol.12, No.2, p272.

[92] The Environmental Law Report Oil Pollution Deskbook, Environmental Law Institute, 1991, p515.

The too low limitation amount is often presented as the formal reason for the US to refuse to ratify the international conventions. However, a further analysis of the 1969 conference records and the US Congress legislative activities shows that the low liability limits were at least not the main reason for the US to refrain from the CLC 1969, but to give priority to domestic law was the major concern of the US Congress at that moment. Moreover, the liability limits in the CLC 1969 were actually higher than those in the then WQIA 1970. The efforts of the US government to strive for very high compensation amount were demonstrated at the 1971 conference preceding the Fund Convention 1971, and such efforts were intensified at the 1984 conference. However, the finally adopted amounts were lower than the ambitious goal of the US. Although the 1984 Protocols were revised towards the US requirement, the low financial limits and again the concern for authority of the states to legislate led to the refusal of the US to join the international regime. Moreover, whether and to what extent state law should be pre-empted by the international convention and national law implementing such convention remained the centre of controversy between the House of Representatives and the Senate.

It may be interesting to notice that it is also the occurrence of some major oil spills that gave impetus to the US legislators to legislation or improve the existing legislation, just like what has happened at the international level.[93] First, after the Torrey Canyon incident in 1967, the US government started intensive actions at both international and national levels. Even though the US did not ratify the CLC 1969 or the Fund Convention 1971, more stringent measures concerning liability and compensation for oil pollution damage were taken at least at federal level since then. The Torrey Canyon oil spill did not occur in the US waters, but it obviously made the US government alert of the imperative necessity of effective oil pollution legislation. The US legislators intensified its efforts to promote an effective civil liability regime for marine oil pollution damage since then. Different than most other countries that waited for the international resolution, the US governments enacted a series of federal legislations addressing the marine oil pollution liability issue disregard the decision at the international level and disregard the fact that its delegation was actively involved in the negotiation for an international regime. First, the WQIA of 1970 imposed strict liability on the owner or operator of an oil-discharging vessel; then such a liability regime was strengthened through the adoption of CWA 1977, whereby the scope of compensation was expanded and the compensation amount was increased. In addition, in order to accommodate the increasing needs of oil transportation related to the development of different sectors of industrial activities, the TAPAA 1973, DPA 1974 and OCSLA 1978 were enacted.[94] However, all these federal statutes imposed separate liability limits and applied different definitions of liable parties, and established separate funds for compensation. Thus prior to the enactment of OPA, the legal regime concerning civil liability for oil pollution was heavily criticized to be ineffective since the various federal laws are very often inconsistent and overlapping and it creates uncertainty and unnecessary complications.[95]

[93] In this respect, see the discussion in Chapters 4 and 5.

[94] Van Hanswyk, B., The 1984 Protocols to the International Convention on Civil Liability for Oil Pollution Damages and the International Fund for Compensation for Oil Pollution Damages: An Option for Needed Reform in United States Law, The International Lawyer, 1988, Vol.22, p341.

[95] See for example, Wagner, T., The Oil pollution Act of 1990: An Analysis, Journal of Maritime Law and Commerce, Vol.21, No.4, October 1990, p572; Mendelsohn, A. and Fidell, E., 1979, p475-496; Bagwell, D. A., Hazardous and Noxious Substances, Tulane Law Review, Vol. 62, 1988, p433.

Moreover, the fact that there were at least four funds under the federal law and some funds under state laws co-existing at the same time was criticized as well.[96] The redundancy of compensation funds of several state and federal statutes was criticized to not make efficient use of financial resources in literature. The literature also suggested that all these funds should be consolidated into one for efficient administration and reduction of costs to oil consumers, who will ultimately finance the funds.[97]

Later, again, it is due to the catastrophic Exxon Valdez spill that the legislative proposals, which were stalled for 15 years, for a uniform national oil pollution regime could finally go through the Congress and be enacted to law. Under the political pressure caused by Exxon Valdez incident, the Senate and the House of Representatives could resolve their conflicts with respect to some crucial issues within several months and come up with the adoption of OPA.

III. Main provisions of OPA

1. Nature of liability

1.1 Responsible parties

OPA contains some 80 sections divided into 9 chapters, and the first 20 sections deal with liability and compensation. The remainder covers issues related to prevention and removal. OPA 90 has established a system which consolidates the various federal liability provisions into one, without preempting state law or implementing the international conventions. It is a comprehensive legislation covering different aspects related to oil spills (being prevention, response, liability and compensation for oil pollution) and it also covers oil pollution from various sources (tankers, non-tanker vessels, offshore facilities and onshore facilities). As far as liability and compensation is concerned, compared with the previous oil spill legislation, the OPA has made some major changes including the broadened scope of damages to include natural resource damages and the increased limitation of liability of the responsible party.

OPA imposes liability on the "responsible party" which is defined to be the "person owning, operating or demise chartering the vessel".[98] Hence, the liability is imposed on the shipowner, operator and demise charterer. However, a problem might arise in practice as there is no definition of the term "operating", which makes it difficult to interpret the concept of an "operator". But Wu suggested in her research that this definition is literally taken from the CWA (it specifically used the term "owner or operator"),[99] hence, the Coast Guard rules to implement the CWA may provide a useful reference. It provides that "any person, including, but not limited to, an owner, a demise charterer or other contractor who conducts or who is responsible for the operation of a vessel. Persons who are responsible for vessels in the capacity of a builder,

[96] Kopec, D. and Peterson, P., Crude Legislation: Liability and Compensation under the Oil Pollution Act of 1990, Rutgers Law Journal, 1992, Vol.23, p617.
[97] Wood, L., 1975, p12.
[98] 33 U.S.C.§2701 (32). It should be noted that the OPA covers not only the pollution liability caused by the vessel, but also that of onshore and offshore facilities, deepwater ports, pipelines and abandonment, as defined in §2701 (32). However, our discussion is restricted to pollution liability of a vessel in order to keep in line with the discussion on the international regime.
[99] 33 U.S.C.§1321 (a) (6). See Wu, C., 1996, p235.

repairer, scrapper, or seller are included in this definition of operator."[100] However, which degree of control is sufficient to justify the position of an operator remains a crucial issue and is very likely to be interpreted by the judiciary.[101]

In addition, when the oil spill or threat of spill is solely caused by "an act or omission" of a third party, such a third party should be treated as "responsible party" for the purpose of determining liability for oil pollution damage.[102] This may seem innovative, but it is not an invention of OPA, but was already established in CWA.[103]

A third party referred to in this provision does not include "an employee or agent of the responsible party or a third party whose act or omission occurs in connection with any contractual relationship with the responsible party".[104] The effect of this provision is that the employees and agents of the responsible party, and any person entering contractual relationship with the responsible party shall never assume liability under the title of "third party" for the oil pollution damage compensation.

1.2 Strict liability

Section 2702 (a) specifically provides that the responsible party shall be held strictly liable for the damage: "each responsible party for a vessel… is liable for the removal costs and damages… that result from such incident." Thus the basic principle of strict liability is established. Furthermore, in section 2703 (b), it is provided that a "responsible party is not liable…to the extent that the incident is caused by the gross negligence or willful misconduct of the claimant." Thus the contributory negligence of the claimant is also taken into account.

As far as liability for the third party is concerned, since there is no requirement for negligence on the side of the third party, and it only mentions in OPA when the "act or omission" of the third party is the sole cause of the oil spill, he should be considered responsible, the liability of the third party in such a case is interpreted to be strict liability as well.[105]

1.3 Exoneration from liability

Section 2703 (b) contains the provision on the defenses which the responsible party can use to avoid liability. The responsible party is not liable if the discharge is "solely" caused by: "(1) an act of God; (2) an act of war; (3) an act or omission of a third party…; or (4) any combination" thereof.

In order to exonerate liability by using the defense of "an act or omission of a third party", the responsible party needs to prove that he has exercised due care with respect to the oil concerned

[100] 33 CFR Chapter 1 §130.2(q).
[101] Wu, C., 1996, p235.
[102] 33 U.S.C.§2702 (d).
[103] 33 U.S.C.§1321 (g).
[104] 33 U.S.C.§2703 (a) (3).
[105] Wu, C., 1996, p235-237.

and took precautions against foreseeable acts or omission of any such third party.[106] Moreover, the responsible party will lose his right to rely on the exoneration of liability provisions if he fails to or refuses to report the incident, provide all reasonable cooperation and assistance, and comply with other related legislation.[107] Therefore, there seems to be strict restrictions and conditions for the responsible party to meet in order to avail himself of the benefit of the defenses to escape liability.

It should also be mentioned that different than its predecessor the CWA, OPA does not include government negligence in maintaining navigational aids as a defense for the responsible party to exonerate from liability.[108]

1.4 Implication

The liability imposed under OPA is strict, joint and several on the responsible parties. This basic principle is almost the same as the previous CWA. However, OPA provision concerning liability is considered more draconian than its predecessors.[109] First of all, the liability defenses are restricted, some conventional defenses are not even included, such as the defense of government negligence in maintaining navigational aids. Second, there are several conditions for the responsible party to meet in order to benefit from the statutory defenses. Third, the responsible party may lose his right to the defenses easily if he does not cooperate or assist in removing activities, or if he does not comply with relevant legislations.

2. Scope of damages covered

The compensable damages under OPA cover removal costs and damages.[110] The removal costs include not only the costs incurred by the government, but also those incurred by any person, as long as their acts are consistent with the National Contingency Plan. This is different than the CWA and other previous legislations, which did not allow private parties to recover for clean-up or removal costs. In this respect, the situation of the private parties are improved via OPA since before OPA they could claim for recovery of their cleanup costs only under maritime tort principles. Such a provision is believed to be an improvement since it will encourage the private parties to take initiatives to clean up knowing that they would be compensated for their costs.[111]

The “damages” in OPA are defined to include damages to natural resources, real or personal property, subsistence use, revenues, profits and earning capacity, and public services.[112] Thus, compensation for private parties is also included, different than the pre-OPA legislation. In addition, costs of assessing damages are also included. Moreover, OPA recognizes the recovery for economic losses of profits or impairment of earning capacity due to injury of natural

[106] 33 U.S.C.§2703 (a) (3).
[107] 33 U.S.C.§2703 (c) (3).
[108] Garick, J ., 1993, p277.
[109] See Wu, C., 1996, p233.
[110] 33 U.S.C.§2702 (b).
[111] §2708 (a) & (b), see also De la Rue, C. and Anderson, C., 1998, p195.
[112] §2702 (b) (2).

resources. Therefore, the pure economic loss is compensable under certain circumstances.[113]

Therefore, OPA expands the scope of the compensable damages beyond those previously available under federal law.[114]

3. Limitation of liability

3.1 Provision in OPA

3.1.1 Amount of limitation

Compared with the previous legislation, OPA has established much higher limits of liability for tankers. Under OPA, the limitation of liability in case of tank vessel is the greater of the following:

- $1200 per gross ton (compared with $150 per ton under the CWA); or
- $10 million for vessels of more than 3,000 gross tons, or $2 million for vessels of 3,000 gross tons or less(compared with $250,000 under CWA).[115]

In addition, section 2718 (often referred to as savings clause) provides that OPA shall not affect the authority of the states to impose additional liability or requirements with respect to the discharge of oil or related response activity. As a result, the states may impose additional liability (even unlimited liability), their own funding mechanisms and requirements with respect to the discharge of oil or the removal of oil. The states can also decide the amount of fines and penalties. This right has been widely exercised by the states.[116] Therefore, even though section 2704 provides for limited liability, section 2718 (c) de facto leaves open the possibility for unlimited liability under state law or to additional liability under other federal statues.[117]

3.1.2 Loss of limitation right

OPA provides that the right of the responsible party to limit his liability shall be extinct under certain circumstances which are specified under the title "exceptions" in §2704 (c): the responsible party will lose the right to limit his liability if the incident is caused by "gross negligence or willful misconduct of", or "the violation of an applicable Federal safety, construction, or operating regulation by" a "responsible party, an agent or employee of the responsible party, or a person acting pursuant to a contractual relationship with the responsible party".[118]

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[113] Morgan, J., 1994, p5.
[114] Garick, J., 1993, p278.
[115] §2704 (a)
[116] Underhill, M., The Sovereign as Plaintiff: Clean Seas and Other Coin of the Realm, University of San Francisco Maritime Law Journal, 1990-1991, Vol.12, p73.
[117] Schminke, P. S., The Oil Pollution Act of 1990: Has it Muddied the Waters of Liability Limitation? University of Baltimore Journal of Environmental Law, 1996, Vol.5, p173-187. For a discussion on the different state laws in this respect, see Eubank, S. R., Patchwork Justice: State Unlimited Liability Laws in the Wake of the Oil Pollution Act of 1990, Maryland Journal of International Law and Trade, 1994, Vol.18, p149-160.
[118] §2704 (c) (1).

Previously under CWA, the standards for breaking the right to limitation was "willful misconduct or gross negligence within the privity and knowledge of the owner". The standards adopted in OPA deleted "the privity and knowledge of the owner". According to Wu Chao, this was because of the belief of the US Senate that "privity" is not a defense.[119]

As for the second situation where the responsible party will lose his right to limitation, it is argued that given the number of federal legislation applicable to ship safety, construction and operation, it might not be too difficult to show there has been a violation of some regulation.[120] However, one still needs to prove such a violation is the proximate cause of the incident. Thus, the harshness of this standard is mitigated to certain extent by the proximate cause requirement. If the violation is not causally related to the incident, the liability limits should not be jeopardized.

Moreover, the acts that can lead to the loss of limitation right are not restricted to the responsible party himself. It will be enough if his agent or employee or a person acting pursuant to a contractual relationship with him is guilty.[121]

In addition to the "Exceptions" provided in §2704 (c), the responsible party can lose his right to limitation as well if he fails to report an incident, or to provide all reasonable cooperation and assistance requested by a "responsible official" in connection with removal activities, or to comply with an order of the President.[122] These activities are crucial since the failure to do so might cost the responsible party not only the right to limitation, but also his defenses to evade liability.[123] De la Rue believes such provisions are consistent wit the intentions of the draftsmen since the limitation of liability should be a mechanism that benefit the shipowner and operator only when they act in good faith.[124]

Further, §2704 (c) (3) provides that all removal costs incurred by the federal government, the states or local official or agency shall be fully compensated, and they are not subject to the limitation of liability.

3.2 Evaluation

Compared with the CWA, OPA has adopted a higher limitation of liability, $1200 per gross ton, in comparison with $150 per gross ton under CWA. But the liability limits as adopted in OPA were considered not extreme or unfounded in view that the costs incurred related to Exxon Valdez has surpassed $2 billion in clean up expenses.[125] Moreover, the liability of the owner or operator of a tanker of the size of Exxon Valdez shall be limited to $114 million only, which

[119] Wu, C., 1996, p243. She believed this was also one of the reasons for the US to refuse to ratify the 1984 Protocols.
[120] De la Rue, C. and Anderson, C.,1998, p193.
[121] Clark, B., 1991, p249-250.
[122] §2704 (c) (2).
[123] See the provisions in 33 U.S.C.§2703 (c).
[124] See Senate Report No. 94, 101st Congress, second session, p14-15. See De la Rue, C. and Anderson, C.,1998, p194.
[125] Smith, S., 1991, p143.

compared with the damage caused by the incident was still not sufficient.[126]

Although OPA provides for limited liability for the responsible party, the non-preemption provision creates an atmosphere of unlimited liability, because the states' rights are not preempted and many states already had state laws with unlimited liability, or they use the right to impose unlimited liability after the adoption of OPA.[127] Prior to the enactment of OPA, 28 states had oil spill liability laws, and 19 of them imposed unlimited liability.[128] Since the enactment of OPA, in 1991, 36 states imposed unlimited liability.[129] Then the question comes if such a liability regime will influence the decision of the industry when they transport oil into the US waters, being afraid to be exposed to the potentially unlimited liability.[130] This has to be analyzed later in view of the effect of the whole liability regime imposed by OPA.

4. Financial responsibility

4.1 General requirement

OPA requires the responsible party to establish evidence of financial responsibility for his vessels over 300 gross tons and up to the amount of the liability limits imposed under the OPA.[131] Failure to do so will lead to sanctions, like withholding clearance, denying entry to or detaining vessels, even seizure of vessels.[132] Therefore, the pure fact of lacking financial evidence may lead to these civil penalties, even if there is no oil spilled.

4.2 Implications for the industry

The insurance industry, more particularly, the P & I Clubs showed immediate discontent to the OPA.[133] In the beginning, the P & I Clubs even refused to issue the certificate of financial responsibility as required by OPA. Their main fear was that the possibility of unlimited liability may expose the Clubs to unpredictable risks, and second a direct action that allows private third parties to proceed directly against the insurer will make the Clubs directly liable for all the costs assessed against the responsible party.[134]

Despite the stress from the insurance industry that the inability of oil tanker operators to obtain the necessary financial guarantees would disrupt oil imports to the US and cause Americans to

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[126] Kiern, L., 2000, p560-561.
[127] Bovet, D. and Corbett, C., The Oil Pollution Act of 1990: Key Provisions and Implications, Proceedings 1991 International Oil Spill Conference, 4-7 March 1991, San Diego, California, p695-697.
[128] CRS Report, Liability Provisions in State Oil Spill Laws: A Brief Summary, 1 October 1990; also, Ramseur, J., 2007, p22.
[129] For further details of states law on marine oil pollution in the United States, see De la Rue, C. and Anderson, C., 1998, p24, 221 and Appendix 11.
[130] Tannahill, G. and Steen, A., OPA 90 Effectiveness: Past, Present, and Future, International Oil Spill Conference, 2000.
[131] 33 U.S.C.§2716.
[132] §2716 (b).
[133] See Bessemer Clark, Implications of U.S. Oil Pollution Act 1990, Fairplay, 27 September 1990, p46-47; for more details on the attitude of the P & I Clubs towards the financial responsibility requirement under OPA, see also Kiern, L., 2000, p560.
[134] Garick, J., 1993, p272.

"freeze in the dark", no such disaster occurred.[135] The financial responsibility requirements of OPA were implemented in the US on 28 December 1994.[136] The Clubs finally agreed to include a new clause, namely the US Oil Pollution Clause into the insurance contract. In effect, this clause renders any port or place in the US or within the EEZ of US an additional premium area, thereby imposing a surcharge for navigation to US waters.[137]

Moreover, contrary to the critics that the new requirements would be financially unbearable, the insurance rates shipowners had to pay were substantially less than originally estimated, and those rates have dropped about 40%. Tanker owners and operators were not forced out of business, and oil tanker imports into the US were not disrupted. Rather, such imports have steadily grown since the requirements have been implemented. Additionally, major Clubs, which initially refused to participate in meeting the Coast Guard's financial responsibility requirements, have also reconsidered their position and formed the Shipowners Insurance and Guaranty Company Limited (SIGCO) to provide evidence of financial responsibility consistent with the Coast Guard requirements.[138]

5. The Oil Pollution Liability Trust Fund

5.1 Establishment of the OSLTF

OPA set up very high amount of limits of liability and in an almost unlimited manner. However, given the risk of single ship company and realizing the insolvency problem that might be encountered by the ship owning company, the need for a fund was recognized by the US Congress.[139]

The Oil Spill Liability Trust Fund (OSLTF) was originally established in 1986 in the Inland Revenue Code.[140] However, there was no legislation to authorize the use of the fund till the enactment of OPA.[141] The OSLTF consolidates the funds established under the previous federal laws, including the CWA, the Deepwater Port Act, the Trans-Alaska Pipeline Authorization Act and the Outer Continental Shelf Lands Act.[142]

5.2 Coverage of the OSLTF

The OSLTF is available to pay for the removal costs incurred by federal or state government; the costs for the government in assessing natural resource damages, developing and implementing restoration plans; uncompensated removal costs and uncompensated damages, and administrative

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[135] Kiern, L., 2000, p570.
[136] Financial Responsibility for Water Pollution (Vessels), 56 Fed.Reg.49,006 (1991), codified at 33 C.F.R. pts.130-132, 137 (1999).
[137] Gauci, G., 1997, p218.
[138] Kiern, L., 2000, p570.
[139] 135th Congress Record, S9689-S9716, Senate Floor Debate, 3 August 1989, particularly in Senator Breaux's speech. See Wu, C., 1996, p246.
[140] 26 U.S.C. §9509.
[141] 33 U.S.C.§2701 (11). Discussion on the history of the OSLTF, see Report on Implementation of the Oil Pollution Act of 1990, 2005, p5.
[142] OPA section 9001 (amending 26 U.S.C.§9509).

costs related to the oil spill.[143]

In general, a claim for oil pollution damage compensation has to be presented first to a responsible party or the guarantor. If the responsible party denies liability, or if the claim is not settle by the responsible party within 90 days since its presentation, the claimant may elect to bring an action before a court against the responsible party, or to present the claim directly to the OSLTF.[144] The intension of this provision is said to ensure that no claimant is out of pocket for a period of more than 90 days following submission of a claim.[145] In practice, given the complexity of potential disputes over such matters as environmental damage, it remains to be seen if this provision provides effective protection to the pollution victims.

5.3 Financing of the OSLTF

The OSLTF has several "recurring and nonrecurring" sources of revenue:[146]

The first and largest source of financing is a 5-cent-per-barrel tax on crude oil transported to or produced in the US. This tax started to be collected from January 1990, and the collection of taxes stops when the OSLTF has reached the sum of $1 billion and the collection recommences when it drops below this figure.[147] Thus, the tax was suspended on 1 July 1993, because the fund balance exceeded $1 billion which is the statutory limit,[148] and it was reinstated on 1 July 1994 when the Fund balance declined below $1 billion. The tax ceased again on 31 December 1994.[149] The tax is addressed at Section 4611 of the Internal Revenue Code.[150] The tax applies to crude oil received at a US refinery and to petroleum products entered into the US for consumption, use or warehousing. The tax also applies to other domestic crude oil used in, or exported from, the US. The tax on crude oil received at a US refinery is paid by the refinery operator. The tax on imported petroleum products is paid by the person entering the product for consumption use or warehousing. The tax on other crude oil is paid by the person using or exporting the crude oil. This represents a difference from the previous fund under the CWA which was financed by taxpayers (the financial source of this fund is appropriation from the US Treasury, and hence ultimately the US taxpayers)[151], whereas OPA taxes the oil industry that directly benefits from the oil trading.[152]

A second major source of funding comes from the transfers from the previously existing pollution funds, including the revolving fund under the CWA, the Deepwater Port Liability Fund, the Trans-Alaska Pipeline Liability Fund, and the Offshore Oil Pollution Compensation Fund. As mentioned before, these prior OPA funds have been abolished since the enactment of OPA and their funds have been transferred to the OSLTF. According to the Coast Guard, total transfers

[143] 33 U.S.C.§2712 (a).
[144] 33 U.S.C.§2713 (c).
[145] Clark, B., 1991, p253.
[146] Report on Implementation of the Oil Pollution Act of 1990, 2005, p6.
[147] Wu, C., 1996, p245.
[148] 26 U.S.C. 4611 (f) (2).
[149] 26 U.S.C. 4611 (f) (1).
[150] 26 U.S.C. 4611.
[151] Kopec, D. and Peterson, P., 1992, p597-628.
[152] Wu, C., 1996, p245.

into the Fund since 1990 have exceeded $550 million.[153] Over 216 million were transferred from the revolving fund under the CWA, the Deepwater Port Liability Fund and the Offshore Oil Pollution Compensation Fund and deposited into the OSLTF; and the largest source has been the Trans-Alaska Pipeline Liability Fund, which transferred $334.7 million over the period 1995 to 2000.[154]

The third source of funding comes from interest on the Fund principal from US Treasury investments. As a result of historically low interest rates, interest income declined in 2003 and 2004. It falls from almost $65 million in 1995 to $13.5 million (45 % of revenue) in 2004.[155]

The fourth source of funding is recoveries of costs and damages from responsible parties and guarantors. The general policy of OPA is the polluter pays principle. Hence, although OPA has established mechanism to facilitate the clean up and response to oil spill, and to encourage the expedite actions of related parties, those responsible for oil spill incidents are liable for the costs and damages. The National Pollution Fund Center (NPFC, the competent authority established to administer the OSLTF) has a billing and collection program to recover costs expended by the OSLTF. In recent years, the NPFC has been able to collect between $7 and $14 million per year the removal costs and damages it pays from the OSLTF. Due to all kinds of difficulties in cost recovering, the NPFC has collected 26.5% of the removal and claims expenditures incurred during the period between 1995 and 2004.[156] The major barrier to recovery, according to the US Coast Guard, is the difficulty in identifying the source of spill or the responsible party of an oil spill.[157] Moreover, costs expended in excess of a responsible party's liability limit are generally unrecoverable.

The fifth source is penalties. Responsible parties may incur fines and civil penalties under OPA, and some other related federal legislations concerning water pollution control, which will be deposited in the OSLTF. Penalty deposits are generally between $4 million and $7 million per year.[158]

5.4 Amount of the OSLTF

The Exxon Valdez incident highlighted the inadequacy of the pre-OPA funding available to the Coast Guard and other federal agencies for pollution response.[159] At the time when Exxon Valdez occurred, the balance of the CWA fund available to the Coast Guard was only $6.7

[153] See the website of the US Coast Guard: www.uscg.mil/ccs/npfc/About_NPFC/osltf.asp. Last assessed May 2008.
[154] See the website of the US Coast Guard: www.uscg.mil/ccs/npfc/About_NPFC/opa_faqs.asp. Last assessed May 2008.
[155] See the website of the US Coast Guard: www.uscg.mil/ccs/npfc/About_NPFC/osltf.asp. Last assessed May 2008. The Department of Treasury serves as the investment manager for the OSLTF.
[156] Ibid, p7. During the period between 1995 and 2004, the Fund has expended $492.3 million for removal and claims, and only $130.6 million has been recovered.
[157] See the website of the US Coast Guard: www.uscg.mil/ccs/npfc/About_NPFC/opa_faqs.asp. Last assessed 21 May 2008.
[158] See the website of the US Coast Guard: www.uscg.mil/ccs/npfc/About_NPFC/osltf.asp. Last assessed May 2008.
[159] See National Response Team, The Exxon Valdez Oil Spill: A Report to the President 34-35, 1989. From Kiern, L., 2000, p545.

million, whereas federal government response costs totaled $135 million and Exxon spent $2.5 billion on removal action alone.[160] The low amount of available funds at the time led to the situation that the government expenditures could not be recovered.

The OSLTF sets a limit of $1 billion (or the balance of the OSLTF, whichever is less) for any one incident. This according to the explanation of Dr Wu means that $1 billion not including the payment from the responsible party.[161]

The OSLTF is composed of two parts, an emergency fund and a parent fund. The emergency fund in capped at $50 million on an annual basis, is available for payment of federal removal costs, funding for state requests to access the Fund directly for immediate removal action and initiation of natural resource damage assessments. The emergency fund is exempt from annual appropriation requirements and may be carried over and allowed to accumulate from one fiscal year to another.[162]

5.5 Implications

Although the OSLTF technically existed as a matter of law before the enactment of OPA, it was not funded because the enabling legislation had not been enacted into law via OPA.[163]

One important financing source for the OSLTF is the 5-cent-per-barrel tax. This is another major change compared with the previous CWA. The fund under CWA was financed by the US Treasury, thus it was often criticized because it ultimately transferred the financial burden to the taxpayers, who in turn would subsidize the oil pollution.[164] The OSLTF on the other hand imposes the financial burden directly on the oil industry.

Without adequate funding, the Coast Guard depended on the willingness and capacity of the responsible parties and their insurers to undertake removal actions. While the Coast Guard still generally prefers responsible parties to undertake removal actions, the relationship between the Coast Guard and responsible parties has changed. With OPA, the Coast Guard gained the financial capacity to undertake the removal action itself if a responsible party is not identified, in the event of a "mystery spill", or if the Coast Guard is not satisfied with the actions of the responsible party. As a result, during the first decade of its application, the OSLTF has provided funds for the Coast Guard and EPA to respond to over 5500 oil pollution incidents.[165]

6. Impact of OPA 90

There have been divergent opinions concerning the effect of OPA. OPA was considered by some to be an improvement especially compared with the previous federal scheme. Some

[160] Kiern, L., 2000, p545.
[161] Wu, C., 1996, p233.
[162] See OPA section 6002, §2752. See also Kiern, L., 1994, p487; De la Rue, C. and Anderson, C.,1998, p197.
[163] Randle, R., 1991, p3-9.
[164] Kopec, D. and Peterson, P., 1992, p597-628.
[165] See Kiern, L., 2000, p545.

commentators even make positive projection that the adoption of OPA "is likely to result in safer tanker operations and to reduce the threat of oil spills in US waters".[166] On the other hand, OPA was also criticized for some reasons. One of the critiques is that OPA fails to properly define its relationship with international and state law. It fails to conform to international conventions whereby isolating US law from the international community. Moreover, since OPA maintains the states' rights to set different and higher liability limits, the standards applied to the oil shipping may thus vary from one state to another. Hence, OPA is also criticized for failing to adopt uniform standards[167]

What is obvious is that the enactment of OPA has widespread influence on the industries.[168] Some major oil companies even threatened to stop oil transportation through the US ports unless they receive some relief from exposure to unlimited liability; some shipowners even considered the possibility of withdrawing from the US market.[169] One of the most prominent objectors is the Royal Dutch Shell Group which announced that "it would no longer send heavy oil to United States ports in vessels it owns or charters".[170] Some oil companies attempted to avoid the risks of shipping oil to the US by selling the oil to an independent contractor and subsequently buying it back when the cargo arrives safely in the US. This appears to be a safe harbor as cargo owners are not subject to liability under the OPA. However, it is only a matter of time before the validity of such an alternative is tested in a US court.[171]

The International Group of P&I Clubs has expressed concerns about the capacity of the reinsurance market. Originally, the P&I Clubs even refused to provide the required financial responsibility certificate, being afraid of the risks of potentially unlimited liability.[172] The International Group in the end agreed to include a new clause, namely the US Oil Pollution Clause into the insurance contract. In effect, this clause renders any port or place in the US or within the EEZ of US an additional premium area, thereby imposing a surcharge for navigation to US waters.[173]

There were some anticipations that operational costs of vessels will increase, not only because of the financial responsibility certificate requirement and the extra costs for insurance, but also because the more stringent safety measures and response mechanism requires higher costs. However, according to De la Rue, although the OPA has indeed impact on the international oil

[166] Bovet, D. and Charles Corbett, 1991, p695. However, they also realized that the "environmental improvements will be paid for by US oil consumers". They also stated in their paper that other the OPA will have other implications including "reassessment of involvement in US oil transportation by both independents and oil majors; enhanced preparedness by responsible parties; a gradual rise in freight rates; corporate restructuring to shield liability; fewer small oil companies and independent carriers in US trades; potential disruptions linked to new certificates of financial responsibility; potential shortages of Alaskan trade tonnage; heightened presence of state governments in oil spill incidents, oil spill legislation, and enforcement".

[167] See e.g. Kopec, D. and Peterson, P., 1992, p599.

[168] Wilkinson, C., Pittman, L. and Dye, R., 1992, p235.

[169] Shipowners like A. P. Møller and Teekay Shipping have initially threatened to abandon the US market, while Royal Dutch Shell has decided to restrict calls to the Louisiana Offshore Oil Port. It seems the risk of a major oil spill was considerably reduced. Elizabeth Canna, Will Oil Spill Bill Invite Abuse? 32 American Shipper 78, 1990. De la Rue, C. and Anderson, C.,1998, p66.

[170] Oil Pollution and Compensation: Hearing before the Subcommittee on Coast Guard and Navigation, 101st Congress, 1st session, 128, 137, 1989, Statement by Jerry Aspand on behalf of the American Petroleum Institute.

[171] Smith, S., 1991, p148.

[172] De la Rue, C. and Anderson, C.,1998, p66-68.

[173] Gauci, G., 1997, p218.

transportation, there was no statistical evidence to prove that tankers originally trading in the US waters withdrew after the implementation of OPA 90.[174]

Some research shows that there have been indeed changes in the patterns of oil spills since the enactment of OPA. The number and volume of oil spills from tankers in the US waters have fallen considerably without the increase in oil prices.[175] One may argue that this could be the overall effect of OPA, not as a result of the liability rules alone, it is difficult to separate the effect of the liability imposed by OPA from that of the preventive measures. According to Kim, the reduction of oil spills in US waters right after the enactment of OPA is not the result of the regulations on preventive measures, but rather resulted from other factors like the increased liability. Kim argued that under the OPA, single hull tankers were to be phased out under a timetable based on the tank vessel's age and tonnage which began only in 1995 and it ran through 2015.[176] OPA requires the interim structural and operational measures for tank vessels of 5000 gross tons or more without double hulls until 2015 to reduce the outflow of oil in the event of oil spills. However, the Coast Guard's rule requiring operational measures took effect in November 1996. Furthermore, there was no requirement for structural measures for the existing single hull tank vessels. Thus, Kim argued this implied that the reduction of oil spills in US waters between 1991 and 1995 did not result from these regulations, but rather from other factors, such as increased liability, financial responsibility, and increase in awareness of liability and the liability insurance costs and attention to risk reducing policies, improved audit and inspection by charterers, enhanced port state control, increased efforts by classification societies to ensure vessels meet the requirements, and public pressure and voluntary replacement of old vessels with double hull vessel. It would however be difficult to isolate a direct correlation between any individual factor and the observed reduction in oil spillage.[177]

Kim also argued that the shipping and oil industries have increased vigilance partly due to the liability provisions of OPA. She gave the example that the potential exposure to unlimited liability under OPA prompted some shipowners to reconsider traditional shipping routes. Arco, Exxon, British Petroleum and other oil shipping companies that transport Alaskan crude oil to California have voluntarily agreed among themselves to operate at least 50 miles off the Californian coast.

V. Recent changes

1. Post-OPA developments

Since the adoption of OPA, the US oil imports and consumption have steadily risen during the last two decades, whereas oil spill incidents and the volume of oil spilled have not followed a similar course. According to a study carried out by the Congressional Research Service, the annual number and volume of oil spills even shows in general a trend of decline.[178]

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[174] De la Rue, C. and Anderson, C.,1998, p66, note 273 and p68, note 277.
[175] Kim, I., 2002, p197.
[176] 46 U.S.C.§3703a.
[177] Kim, I., 2002, p203.
[178] Ramseur, J., 2007, p23.

Table: Major recent oil spill incidents caused by tankers in the US

Name and flag of tanker	Date of incident	Place of incident	Amount of oil spilled
Julie N	27/09/1996	Portland, Maine Casco Bay	165,900 gallons
Westchester	28/11/2000	Mississippi River Near Buras, Louisiana	538,000 gallons
New Amity (Liberian)	22/09/2001	Houston Ship Channel	50,000 gallons
Genar Alexander (Marshall Islands)	19/02/2004	New Orleans	40,000 gallons
Bow Mariner (Singapore)	28/02/2004	New Jersey coast	55,000 gallons
Torm Mary (Danish)	02/08/2004	Sabine waterway of Texas	26,000 gallons
Athos I (Cypriot)	26/11/2004	Delaware River	260,000 gallons

Source: Report on Implementation of the Oil Pollution Act of 1990, US Coast Guard, 2005.

2. Increase of OSLTF

The OSLTF's balance has generally declined from 1995 through 2006. One of the main reasons according to the US Coast Guard is that the 5-cent-per-barrel tax expired in 1994. The US Coast Guard also predicted at the time that the OSLTF would be exhausted by fiscal year 2009. At the end of the fiscal year 2006, the OSLTF's balance was $604.4 million.[179] Thus at the 109th Congress, it was decided that the 5-cent-per-barrel tax should be reinstated through the Energy Policy Act of 2005,[180] which would take effect since 1 April 2006.[181]

The Energy Policy Act of 2005 raised the maximum limit of the Fund to $2.7 billion.[182] The main reasons according to the Coast Guard are that the liability limits under OPA 90 were never updated since the enactment of OPA 90, although there is a provision allowing for periodic adjustments in liability limits. There are, however, risks of major oil spills where the costs exceed the liability limits under OPA 90. A recent example is the Athos I incident which spills oil into the Delaware River in November 2004. The owners of the Athos I paid more than $100 million for the response and cleanup. However, according to the investigation of the Coast Guard, there was no violation on the part of the ship or its crew or pilots. Consequently, Athos I could file a claim against the OSLTF to recover its costs. Including other claims for damages by third party who suffers damage, total claims against the OSLTF from the Athos I incident could total more than $270 million. This points to the need of increasing the maximum amount of funds available for compensation under the OSLTF.

[179] US Coast Guard, Report on the Oil Spill Liability Trust Fund, May 2005, p11.
[180] Public Law 109-58, 119 Stat. 594-1143, 8 August 2005.
[181] Section 1361 of 119 STAT.1058-1059.
[182] §1361 of 119 STAT. 1058-1059.

Under the Energy Policy Act of 2005, when the balance of the OSLTF reaches $2.7 billion, the 5-cent-per-barrel tax will stop, until and unless the fund balance later drops below $2 billion. However, the tax will be discontinued on 31 December 2014, regardless of the Fund balance.

The Energy Improvement and Extension Act of 2008[183] has extended the barrel tax through 31 December 2017, and moreover increased the amount of tax from five US dollar cents to eight cents for the period of 2009 to 2016 and to nine cents for 2017.

3. Increase of liability limits

In 2006, the limitation amount was increased via the Coast Guard and Maritime Transportation Act of 2006.[184] More interestingly, the method of calculation is also amended.[185] With respect to tankers, the liability limits are not only related to the tonnage, but also depend on the structure of the tankers. The liability limit of a single hull tanker is higher than that of a double hull tanker of the same size. The table below summarizes the liability limits for vessels after the amendment in 2006 in comparison with the original liability limits under OPA.

Table: Comparison of liability limits under OPA 90 and the Coast Guard and Maritime Transportation Act of 2006

Vessel	OPA 90 liability limits	2006 (2009) liability limits
Single hull tanker > 3000GT	$ 1,200/GT or $ 10,000,000	$3,000(3200)/GT or $22,000,000 (23,496,000)
Single hull tanker ≤3000 GT	$ 1,200/GT or $ 2,000,000	$3,000 (3200)/GT or $6,000,000 (6,408,000)
Double hull tanker > 3000GT	$ 1,200/GT or $ 10,000,000	$1,900 (2100)/GT or $16,000,000 (17,088,000)
Double hull tanker ≤3000 GT	$ 1,200/GT or $ 2,000,000	$1,900(2100)/GT or $4,000,000 (4,272,000)
Any vessel other than a tanker	$ 600/GT or $ 500,000	$950 (1,000)/GT or $800,000 (854,400)

Note: First, the single hull tanker mentioned in the Coast Guard and Maritime Transportation Act of 2006 includes single hull tanker with double sides only or a double bottom only. Second, the amount of limitation is always the higher of the two amounts in comparison. In 2009, the Coast Guard made its first consumer-price index (CPI) adjustment to the liability limits, and increased the limits for double-hull tankers from 1900 to 2100 USD per gross ton and for single-hull

[183] Public Law 110-343.
[184] Public Law No.109-241, enacted 11 July 2006. the amended liability limits for tankers are effective for an oil discharge or substantial threat of discharge that occurs on or after 9 October 2006, and the amended liability limits for any other vessel are effective for an oil discharge or substantial threat of discharge that occurs on or after 11 July 2006.
[185] See Section 603 of Coast Guard and Maritime Transportation Act of 2006.

tankers from 3000 to 3200 USD per gross ton.[186]

4. Evaluation

Despite the recent increases in the compensation amounts under the US marine oil pollution compensation system, the US Coast Guard is still alert of the potential danger of a major oil spill that would exceed the available resources in the American system.[187] As a reference point, the Exxon Valdez spill cost approximately $2 billion in cleanup costs and $1 billion in natural resource damages. If an oil spill from a vessel of the same size as Exxon Valdez (95,000 gross tons) were to occur, the vessel liability under the new limits would be capped at either $285 million for a single hull tanker or $181 million for a double hull tanker. The amount beyond the financial limits should be covered by the OSLTF, whereas the available fund in the OSLTF was around $637 million in 2007. Thus, despite the recent changes, the US Coast Guard is still worried that a major oil spill (especially one in a sensitive environment) could threaten the viability of the OSLTF.[188]

According to the best available data , since the adoption of OPA till 2009, there have been 51 oil spill incidents caused by vessels that are known to have resulted in removal costs and damages in excess of OPA liability limits.[189]

A breakdown of the 51 incidents shows that tankers only accounts for 4% of these discharges that result in damages in excess of the liability limits, and these 4% incidents are only those caused by single hull tankers, and there is no double hull tanker involved in the 51 incidents.[190] Although not constituting a high portion of incident amounts, the total costs per incident of the single hull tankers are the highest.[191] This has to do with the fact that the quantity of oil carried on a tanker is much higher that that of e.g. a fishing vessel.

VI. Conclusions

The legal framework for marine oil pollution compensation in the US is complicated since it exists in two different levels, the federal and state laws. At the federal level, the principal statute is the Oil Pollution Act 1990. The OPA 1990 does not preempt the right of individual states to adopt their own legislations on oil pollution from ships, and this right has been widely exercised by the states to impose liability that is more extensive than the OPA regime.

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[186] United States Coast Guard, Consumer Price Index Adjustments of Oil Pollution Act of 1990 Limits of Liability – Vessels and Deepwater Ports, Federal Register Vol. 74, No. 125, 1 July 2009, p31357-31369.
[187] Ramseur, J., 2007, p20.
[188] Ramseur, J., 2007, p21.
[189] Oil Pollution Act (OPA) Liability Limits, Annual Report to Congress, Fiscal Year 2009, August 2009, p3. Data indicate that no facility oil discharges have resulted in removal costs and damages even approaching the applicable liability limits for such facilities.
[190] The data indicate that single hull and double hull tank barges account for 16% and 4% respectively of the incidents, fishing vessels represent 37% of the incidents, whereas cargo and other self-propelled non-tank vessels account for 39% of the incidents. Ibid, p3-4.
[191] The per incident costs from single hull tankers are approximately USD 187.3 million, the costs for all tank barges are approximately USD 61.3 million, those costs of cargo vessels are USD 25.4 million, and those of fishing vessels are USD 2.4 million. See Ibid, p4.

From the analysis of the US legal history, one interesting aspect of the civil liability regime for marine oil pollution damage in the US is that it has gone through a shift from a very restricted negligence liability scheme to one of strict liability.[192] Previously, under the Clean Water Restoration Act 1966, the liability was imposed on the shipowner only when the spill was caused by the willful misconduct or gross negligence, and it did not cover the cases of oil spill caused by accidents or negligence in the common sense. It was only in the WQIA 1970 that strict liability was adopted, and the later federal legislations including the CWA and OPA all followed such a strict liability regime.

The US legislators attempted to design a comprehensive oil pollution statute since 1970's, but these efforts were not successful for a long time. The oil pollution laws before 1990 were criticized to provide varying and inconsistent liability.[193] On the other hand, the dependence of the US on oil imports has resulted in increasing transport of oil in tankers through US waters, which imposes the US waters to continuing risks of oil spills. Thus when the Exxon Valdez and some other incidents occurred around, under the public pressure, the US adopted unilateral approach by enacting OPA.[194]

The liability regime adopted under OPA is also twofold (in this respect, similar as the international regime), being the first layer of liability on the shipping industry and the second layer on the oil industry. The first layer of liability is strict liability imposed on the shipowner, operator and bareboat charterer, jointly and severally. Although the liability under OPA is formally limited to certain amount, the relevant provisions are formulated in such a way that the responsible party has to meet certain conditions to make use of the right of limitation and he may lose his right of limitation easily. Moreover, the non-preemption of state law leaves open the possibility of unlimited liability.[195] The responsible parties are required to take out liability insurance up to the statutory limitation amount. The second layer of liability is imposed via the OSLTF. The major source of this fund is a tax on the oil industry calculated according to the amount of oil transported into the US. In addition, there are other sources for the fund, such as the fine and the recovery of costs paid from the fund.

The adoption of OPA has great influence on the practice of oil shipping in the US. The oil spill volume is in the trend of decreasing since 1990. However, some major oil spills nevertheless occurred which caused damage exceeding the liability limits under OPA. Realizing the danger of large amount of damage related to major oil spills uncompensated, the US legislators increased the financial limits and the amount of the compensation available under the OSLTF.

[192] Kopec, D. and Peterson, P., 1992, p601.
[193] Ruhl, J.B. and Jewell, M., Oil Pollution Act 1990: Opening a New Era in Federal and Texas Regulation of Oil Spill Prevention, Containment and Cleanup, and Liability, Texas Law Review, 1991, Vol. 32, p475-491.
[194] Kim, I., 2003, p269.
[195] Bovet, D., 1993, p734.

Chapter 7 Chinese Marine Oil Pollution Compensation Regime

I. Introduction

China encounters the same problem as many other developing countries, being focusing on the economic development at the current stage while facing more and more serious environmental problems.

First, China is a country with high demand for oil. The oil consumption of China has been growing and it has become the third biggest oil consumption country in the world, only next to America and Japan.[1] China has turned into an oil-importing country since 1993[2] and its oil import volume has substantially increased since then and is still in the trend of increasing.[3] Moreover, 90% of the oil import in China is carried out by tankers.[4] Thus, oil transportation by sea along the Chinese coast is frequently carried out. At the same time, the shipping industry has been expanding (more large tankers were employed in oil transportation) as well to cope with the growing need for oil transport at sea. However, the growth of the Chinese tanker fleet does not correspond with the increase of the demands for oil import. Thus, more and more foreign flag tankers are expected to participate in the oil transport.[5] Second, China has an extensive coastline of 18,000 km which is exposed to the risks of pollution. Originally shipping between two Chinese ports is only allowed for Chinese vessels, while presently more and more ports are open to international trade and transportation. Hence, with the increasing volume of oil transported, China is more exposed to the potential risks of marine oil pollution. China as a developing country is thus confronted with the dual tasks of economic development and environmental protection.

On the other hand, the legal system in China is not fully developed yet despite the efforts of the Chinese government to improve the legal system concerning (marine) environment protection through the adoption of new legislation or modification of the existing legislation. For instance, the China Maritime Code[6] was adopted in 1993 which in many respects bears similarities to the

[1] Liu H., Liability System on Marine Oil Pollution in China and Suggestion on the Ratification of the Bunker Convention, China Maritime Law Association Newsletter, Vol.65, September 2002, p26.

[2] Gao Z., speech at Symposium: Energy and International Law, Texas International Law Journal, Vol. 36, 2001, p38, 39. According to Dr. Gao, before 1993, China was self-sufficient in oil, both in terms of production and refining. Currently, China is the third largest producer with 160 million tans a year (the measurement in China is "tans" instead of "barrels" per day), and the fifth largest refiner with a capacity of well over 200 million tans a year. In 1999, China imported 40 million tans of oil, both crude and refined products, which accounted for roughly one-fourth of the total energy supply.

[3] According to the statistics, in 2000, the throughput of oil in major ports in China in 2000 has reached 307 million tons, among which the oil import accounts for 88.31 million tons (statistics from China Maritime Law Association Newsletter, Vol.65, September 2002, p26); in 2003, China imported 91.12 million tonnes of crude oil, an increase of 23 million tonnes, or 31.3% over 2002. However, the current estimate is that only 15% of imports are lifted in Chinese vessels, (statistics from Lloyd's List Maritime Asia, spring 2004, p19).

[4] Wang H. C., Ships Oil Pollution Fund is Coming into Being – China Will Establish the Compensation System Suitable for the Country's Situation for Damage caused by Ships Oil Pollution, China Maritime Safety, Vol.1, 8 August 2005, p9. According to this research, there are pipelines under construction between China and Russia. Even when these pipelines are finished, there will still be more than 80% of oil transported in tankers.

[5] Wang H. C., 2005, p9.

[6] Maritime Code of the People's Republic of China was adopted at the 28th Meeting of the Standing Committee of the 7th National People's Congress on 7 November 1992 and effective as of July 1, 1993. An English translation of this Maritime Code was published in 2000 through the Foreign Languages Press, Beijing.

international conventions to which China is a party; the Marine Environment Protection Law was amended in 1999 to take into account new developments in China. However, there is no separate statute dealing particularly with marine oil pollution issues, nor are there specific provisions in these legislations concerning the oil pollution compensation problem. As a result, confusion arises in practice as to which law shall be applied in case of marine oil pollution compensation.

Moreover, China is a party to the CLC 1969 since 1980 and also to the later CLC 1992, but not to the Fund Convention. However, there is no unambiguous rule in Chinese law on how the international conventions should be applied in China. Thus problems exist as to when the international convention (CLC in this particular case) shall be applied, and when the domestic law alone should suffice. In addition, the absence of a compensation fund in China leads to the insufficient compensation (or even no compensation at all) of the oil pollution victims under Chinese jurisdiction in case of major oil spills. Moreover, the government expenses or the salvage costs are not reimbursed, not to mention the restoration of the marine environment, as illustrated by some recent incidents in the Chinese waters.

Thus, in this chapter, the focus of the discussion will be on the Chinese approach in dealing with the issue of civil liability for marine oil pollution damage as a typical example representative of the developing countries. After this brief introduction, an overview will first be provided of the relevant legislation in China that might be applicable in the case of oil pollution compensation, including the domestic laws and the international convention acceded to by China. Then the problems that arise in the course of the application of the relevant laws will be analyzed. Third, some concluding remarks will be formulated in the context of the researches concerning the Chinese oil pollution compensation system carried out at both the central government and the local government levels.

II. Relevant legislation in China

1. Domestic legislation

1.1 General rules

As far as domestic legislation on oil pollution compensation is concerned, there is no particular legislation which is specialized in dealing with the marine oil pollution issue, but there are statutes which contain provisions related to the oil pollution problem.

The application of national laws in China follows the principle of *lex specialis derogat lex generalis.* Thus, the *lex specialis* which may be considered includes the Marine Environmental Protection Law and the China Maritime Code, although there are debates on which of the two should be considered first. In addition, there is a Regulation Concerning the Prevention of Pollution of Sea Areas by Vessels. In case no provision in these specific laws or regulations can be employed, one might need to consult the General Principles of the Civil Law of the People's Republic of China.

1.2 Marine Environmental Protection Law

The Marine Environmental Protection Law of the People's Republic of China (referred to as the MEPL) was originally adopted in 1982, and later revised in 1999.[7]

The revised MEPL contains in Article 66 the provision that the state shall implement civil liability for marine oil pollution and ensure the establishment of oil pollution insurance and a compensation fund. This article reads "The state shall make perfect and put into practice responsibility system of civil liability compensation for oil pollution by vessel, and shall establish insurance system of oil pollution by vessel, compensation fund system of oil pollution by vessel in accordance with the principles of sharing of owners of the vessel and the cargo of the compensation liabilities for oil pollution by vessel." This is the first time in Chinese legislation that the principle of compensation for marine oil pollution damage shared between the shipowner and the cargo owner is explicitly established. However, it only states such a general principle and only requires the State Council to formulate implementing measures. As a result, the principle of joint liability between the shipowner and the cargo owner remains at a theoretical stage, and there has been no compensation fund set up in China so far.

Article 90 stipulates that "Those who cause pollution damage to the marine environment shall eliminate the damage and compensate the losses". Thus, the discharger is required to eliminate the damage and pay compensation, both of which are civil remedies for torts recognized in Chinese law. One interpretation is that this provision implies that the polluter shall compensate the actual losses to the full amount, and there is no limitation of liability. Another interpretation is that this is only the general principle that the polluter should be held strictly liable, when it comes to the specific amount of compensation, as long as it complies with the conditions laid down in the China Maritime Code for the shipowner (including charterer and operator) to limit his liability, the polluter is allowed to enjoy the right of limitation as provided in the relevant articles in the China Maritime Code.

In the second paragraph of Article 90, it stipulates that "If the State suffers heavy losses from the damages to marine ecosystems, marine aquatic resources and marine nature reserves, the departments invested by this law with the power of marine environment supervision and administration shall, on behalf of the State, put forward compensation demand to those who are responsible for the damages." It provides the legal basis for recovery for natural resources. However, it only applies to "heavy losses" caused to the natural resources, and there is no provision on if and how to compensate the losses that are not considered "heavy". Moreover, it fails to define what are the so-called "heavy losses" or to specify what are the standards for damages to constitute "heavy losses". In addition, this article actually only concerns damages to natural resources suffered by the "State"; as for the damage sustained by individuals or other private parties caused by the oil pollution, there is no explicit provision on the scope of damages recoverable or to what extent they can be compensated.

[7] The MEPL 1982 was adopted on 23 August 1982, and has come into effect as of 1 March 1983; the MEPL 1999 was adopted on 25 December 1999, and has come into effect as of 1 April 2000. For a detailed analysis of the MEPL 1982, see Eckart Broedermann, China and Admiralty – An Introduction to Chinese Maritime Law and U.S.-Chinese Shipping Relations, Journal of Maritime Law and Commerce, Vol. 15, 1984, p419-453, 539-584; Vol.15, 1985, p65-99.

As a result, when a claimant brings an action for compensation for oil pollution damage in practice, the MEPL alone does not suffice to offer a satisfactory solution to the oil pollution compensation problem in practice. Given the fact that there is no specific provision on the compensation for private parties who suffer losses from oil pollution, the ones who are accused of discharge often refer to the China Maritime Code to limit their liability. This will be discussed further below.

Notwithstanding the inadequate provisions in the MEPL, the applicability of the MEPL is also debated. Some Chinese scholars hold that the MEPL is an administrative statute in nature, while the compensation for oil pollution damage is a civil law issue to which only the civil statutes should be applicable and not the administrative law. It is indeed the case with MEPL that most of the provisions are related to the supervision and administration of activities that might have an influence on the marine environment. For instance, Article 71 provides how the administration authority can intervene and take compulsory measures to avoid or mitigate pollution damage.[8] Article 91 contains provision on the administrative fine.[9]

1.3 China Maritime Code

As mentioned before, oil dischargers when confronted with claims for compensation often tend to refer to the China Maritime Code in order to benefit the right of limiting their liability to a certain amount. Chapter XI of China Maritime Code deals with "the limitation of liability for maritime claims".

The only explicit reference in the China Maritime Code concerning oil pollution compensation is Article 208 which stipulates that "The provisions of this Chapter shall not be applicable to the following claims: … (2) Claims for oil pollution damage under the International Convention on Civil Liability for Oil Pollution Damage to which the People's Republic of China is a party; …"[10] It specifically provides that the limitation of liability as contained in the China Maritime Code shall not apply where the CLC applies. Hence, the intention of this provision is to give priority to the international conventions. However, the application of international

[8] Article 71 reads: "If vessels occur maritime incidents causing or being likely to result in major pollution damages to the marine environment, the State competent authority being in charge of maritime affairs shall have the power to take compulsory measures to avoid or decrease pollution damage.
If vessels and facilities occur maritime incidents at the high sea resulting in consequences of major pollution damage or threat to the sea areas under the jurisdiction of the People's Republic of China, the State competent authority being in charge of maritime affairs shall have the power to take corresponding measure necessary for pollution damages which have caused or are likely to cause.

[9] Article 91 Reads: "Any unit, in violation of the provisions of this law, causes pollution accident to the marine environment, shall be fined in accordance with the damage and losses incurred by the department invested by this law with the power of marine environment supervision and administration. If the manager and other staff directly responsible for such accident are personnel employed by the governmental departments, they shall be imposed administrative penalties by law.
The amount of fine mentioned in the above clause shall be determined according to 30 per cent of the direct losses, but no more than RMB 200,000 yuan.
Those who causes serious consequences of heavy losses of public and private property or human injuries and deaths of persons by major marine environment pollution accident, shall be investigated and imposed upon criminal responsibility by law."

[10] It is contained in Chapter XI which is titled "Limitation of Liability for Maritime Claims".

conventions in China is a very complicated issue that will be discussed in detail below.

As for the application of Chapter XI to limit the liability for oil pollution compensation, several articles shall be considered:

Article 204 provides that the shipowners (including the charterer and operator of a ship) and salvors may limit their liability when complying with the conditions laid down in this chapter.

Article 207 provides that:
"Except as provided otherwise in Articles 208 and 209 of this Code, with respect to the following maritime claims, the person liable may limit his liability in accordance with the provisions of this Chapter, whatever the basis of liability may be:
(1) Claims in respect of loss of life or personal injury or loss of or damage to property including damage to harbour works, basins and waterways and aids to navigation occurring on board or in direct connection with the operation of the ship or with salvage operations, as well as consequential damages resulting therefrom;
(2) Claims in respect of loss resulting from delay in delivery in the carriage of goods by sea or from delay in the arrival of passengers or their luggage;
(3) Claims in respect of other loss resulting from infringement of rights other than contractual rights occurring in direct connection with the operation of the ship or salvage operations;
(4) Claims of a person other than the person liable in respect of measures taken to avert or minimize loss for which the person liable may limit his liability in accordance with the provisions of this Chapter, and further loss caused by such measures.
All the claims set out in the preceding paragraph, whatever the way they are lodged, may be entitled to limitation of liability. ..."
The compensation for oil pollution damage can be considered a "restricted credit right" in Article 207 which may arise from the above mentioned claims. Hence, the compensation for oil pollution damage may be limited under Chapter XI.

As for the amount of limitation, Article 210 provides a detailed method of calculation:
(1) In respect of claims for loss of life or personal injury:
  a) For a ship from 300 to 500 gross tonnes, 333,000 SDR;
  b) For a ship of more than 500 gross tonnes, 333,000 SDR plus the amount as follows:
    For each ton from 501 to 3000 tons: 500SDR
    For each ton from 3,001 to 30,000 tons: 333SDR
    For each ton from 30,001 tons to 70,000 tons: 250SDR
    For each ton in excess of 70,000 tons: 167 SDR;
(2) In respect of claims other than loss of life or personal injury:
  a) For a ship between 300 to 500 gross tonnes, 167,000 SDR;
  b) For a ship of more than 500 gross tonnes, 167,000 SDR plus the amount as follows:
    For each ton from 501 to 30,000 tons: 167SDR
    For each ton from 30,001 tons to 70,000 tons: 125SDR
    For each ton in excess of 70,000 tons: 83 SDR;

This article makes a distinction between the "loss of life or personal injury" and "claims other than loss of life or personal injury". Interestingly the limits of liability for "loss of life or personal injury" are almost twice as high as those of the "claims other than loss of life or personal injury". It seems the legislator attaches more importance to the human life and personal injury than to other damages like economic losses.

In case of claims for oil pollution damage, this mostly concerns damages other than "loss of life or personal injury". Thus the limitation amount under the China Maritime Code is actually lower than the limitation under the CLC.[11] Take a tanker of 5000 tons for instance, under the China Maritime Code the owner of such tanker can limit his liability to 0.9185 million SDR; while under CLC 1992, his limit would be 3 million SDR.

There is, however, a different opinion, holding that the China Maritime Code should not be applicable to oil pollution compensation caused by tankers.[12] The main argument given by the advocators for this approach is that since the application of law in China follows the principle of *lex specialis derogat lex generalis*, the *lex specialis* in the case of marine oil pollution compensation should be MEPL. Since there is no provision saying that the oil discharger can limit his liability to certain amount, the discharger should compensate the victim to the full amount. Although there are provisions concerning limitation of liability in the China Maritime Code, since it does not specify that it shall be applicable to oil pollution compensation as well, the limitation seems to be contradictory to the principle of actual compensation to the full amount implied under the MEPL.

In practice, owners of tankers often refer to the China Maritime Code to limit their liability and most of the time the maritime courts grant such a right of limitation.

1.4 General Principles of the Civil Law

The General Principles of the Civil Law of the People's Republic of China[13] contain a general principle with respect to pollution. Article 124 stipulates that "Any person who pollutes the environment and causes damage to others in violation of state provisions for environmental protection and the prevention of pollution shall bear civil liability in accordance with the law."

This reflects in general the polluter pays principle. However, it remains a general description of the principle, and does not solve the dispute arising from particular oil spill cases where the method of compensation is the crucial issue.

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[11] Article V.1 of the CLC 1992 provides "The owner of a ship shall be entitled to limit his liability under this Convention in respect of any one incident to an aggregate amount calculated as follows:
(a) 3 million units of account for a ship not exceeding 5,000 units of tonnage;
(b) for a ship with a tonnage in excess thereof, for each additional unit of tonnage, 420 units of account in addition to the amount mentioned in sub-paragraph (a);
provided, however, that this aggregate amount shall not in any event exceed 59.7 million units of account.

[12] Liu H., Liability System on Marine Oil Pollution in China and Suggestion on the Ratification of the Bunker Convention, China Maritime Law Association Newsletter, Vol.65, September 2002, p27.

[13] Adopted on 12 April 1986, and came into effect as of 1 January 1987.

1.5 Regulations

Following the promulgation of the MEPL 1982, the Regulations Concerning the Prevention of Pollution of Sea Areas by Vessels were enacted in 1983[14] (referred to as the Regulations 1983) to implement the MEPL of 1982.[15] Since the revision of the MEPL in 1999, the Regulations 1983 were under debate for a consequential revision. However, the long process of revision of the Regulations 1983 took years till 2009 when the Regulations on the Prevention and Control of Marine Pollution from Ships (referred to as the Regulations 2009) were adopted. These new Regulations are effective as of 1 March 2010.

Chapter 7 of the Regulations 2009 is on the compensation for pollution caused by vessel incidents. Several articles in this chapter worth mentioning.

Article 50 provides that the person liable for marine pollution shall bear the costs of damage. When the pollution is totally attributed to the intentional act or negligence of a third party, the third party shall be held liable for the compensation. Therefore, the party liable for compensation is not specified, but remains a general concept.

Article 52 provides that in general the limitation of liability for vessel source pollution shall be calculated according to the provisions in the CMC. However, when it comes to marine pollution in the territorial waters under the jurisdiction of the PRC caused by ships carrying persistent oil in bulk, the limitation of liability shall be calculated pursuant to the relevant international conventions ratified or acceded to by China, which is mainly the CLC.

Article 53 contains the provision on compulsory insurance. It provides that all ships (except ships below 1000GT carrying non-oil cargo) navigating within the Chinese territorial waters shall obtain compulsory insurance or financial security satisfying the requirements of the CMC or the applicable international conventions.

Article 56 of the Regulations 2009 provides that the cargo owner or his agent who receives the persistent oil shall contribute to the Ship Oil Pollution Compensation Fund. The collection and management of the Fund will be developed by the Ministry of Transport[16] and finance authorities of the State Council. An administration commission, established by the sate, and comprising relevant government officials and representatives of major cargo owner contributors, will be responsible for the administration of the Fund. It seems the establishment of a domestic Chinese oil pollution compensation fund is confirmed in this article. However, the regulations on how to collect, use and manage the fund are still lacking. At least, this provision may formally conclude the discussion on whether China should accede to the Fund Convention or establish a national fund.

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[14] Promulgated by the State Council of the People's Republic of China on 29 December 1983.

[15] Article 1 of the Regulations reads: These Regulations are hereby formulated for the enforcement of the Law of Marine Environmental Protection of the People's Republic of China, the prevention of pollution of sea areas by vessels and the preservation of marine ecological environment.

[16] In March 2008, the original Ministry of Communications, Civil Aviation Administration, and the State Postal Bureau are merged into one Ministry – the Ministry of Transport of the People's Republic of China. The Maritime Safety Administration is one of the main agencies reporting to it.

The Regulations 2009 seem a progress in the sense that they cover a wide range of pollution issues in a more systematic way compared with the 1983 version. However, the general wording of some important aspects of the regulations, such as the establishment of a domestic oil pollution compensation fund still requires further implementing regulations. Therefore, although the Regulations 2009 formally come into effect on 1 March 2010, the actual effect of these regulations may not be demonstrated until the further implementing measures are in place.

1.6 Maritime courts

In China, the claims for marine oil pollution compensation are dealt by the maritime court. There are so far 9 maritime courts in China. All these maritime courts have their own geographic jurisdictions. Each maritime court consists of two tribunals, the Admiralty Tribunal and the Maritime Commerce Tribunal.[17] The cases related to marine pollution compensation are dealt with in the Admiralty Tribunal.

On 28 November 1984, the Supreme People's Court decided to establish maritime courts in five cities in China, Guangzhou, Shanghai, Qingdao, Tianjin and Dalian.[18] Later in 1986, a sixth maritime court was established in Wuhan; and subsequently in 1990, two other maritime courts were set up in Haikou and Xiamen; most recently, the ninth maritime court was established in Ningbo.[19]

The intention of the Chinese government to establish the maritime courts is to resolve maritime disputes in a professional and impartial manner through the establishment of a specialized maritime judiciary.[20] The existence of several maritime courts do contribute to some extent to the settlements of maritime disputes, but on the other hand, the different judicial interpretation leads to confusion in practice.

2. International conventions ratified by China

2.1 CLC

China has acceded to the CLC 1969 on 30 January 1980, which entered into force in China on 29 April 1980. Due to the compulsory denunciation procedure, China has denunciated the CLC

[17] For the historical background of the establishment of the maritime courts in China, see Zheng, H., Private International Law in the People's Republic of China: Principles and Procedures, Texas International Law Journal, Vol.21, 1987, p251.

[18] Decision of the Supreme People's Court on Questions concerning the Establishment of Maritime Courts, 28 November 1984. When set up, the geographic jurisdictions of these courts are as follows: Guangzhou Maritime Court resolves cases from ten major ports in southern China, including Guangzhou, Huangpu, Shantou and Zhanjiang. Shanghai Maritime Court has jurisdiction over cases in eight major ports in southeast China, such as Xiamen, Fuzhou, Ningbo, Lianyungang and Shanghai. Qingdao Maritime Court covers four major ports in east China, including Qingdao, Weihai and Yantai. Tianjin Maritime Court is responsible for two major ports, Tianjin and Qinhuangdao, and the southern part of Bohai, a large gulf in eastern China. Dalian Maritime Court is in charge of the north part of Bohai and two major ports, Dalian and Yingkou. Cases arising from waters adjacent to these ports fall within the jurisdiction of the appropriate maritime court. However, there are slight changes in the geographic jurisdiction with the establishment of more maritime courts in China.

[19] Ibid, p256.

[20] Tang, Z., Maritime Jurisdiction of the People's Republic of China: Legal Framework, Recent Developments, and Future Prospects, Journal of Maritime Law and Commerce, Vol.25, April 1994, p254-258.

1969 and joined the CLC 1992 Convention, which was effective in China since 5 January 2000. When the 2000 Amendment to the CLC took effect in 2003, since Chinese government has raised no objection or any announcement of reservation, under the tacit acceptance procedure, the 2000 Amendment to the CLC is effective in China as well.[21]

2.2 Fund Convention

As for the Fund Convention, the mainland China and the Hong Kong SAR apply different rules. The Mainland China is not yet a party to the Fund Convention; on the other hand Hong Kong is a party to the Fund Convention.

Due to historical and political reasons, Hong Kong was under the jurisdiction of the UK until 1997. The UK is a party to both the CLC 1992 and the Fund Convention 1992. Since the transfer of sovereignty of Hong Kong to the Chinese government in July 1997, Hong Kong has become an administrative region of China. However, the Chinese government promised to maintain the original system in Hong Kong for 50 years and also in order to keep the legal consistency in Hong Kong, the Chinese government decided that the Fund Convention should continue to apply to and only to Hong Kong. This was supported at the Fund Assembly in 1997. So Hong Kong remains a party to the 1992 Fund.

2.3 Application of international conventions in China

In general, there are two approaches for states to implement an international convention, monism and dualism. Monism is the approach that once an international convention is ratified or acceded to by a state, it shall automatically become part of the domestic legal system of the state without further domestic legislation. Dualism is the approach that an international convention ratified or acceded to by a state shall not become laws unless the rules in the convention are converted correspondingly into domestic legislation, whereby the international convention is transformed into part of the legal system. The Chinese approach in dealing with the relationship between the international conventions and domestic law, strictly speaking, is neither the monistic nor the dualistic approach.[22] One may find different approaches in various Chinese statutes dealing with specific areas of law.[23]

A frequently adopted approach as far as maritime affairs are concerned, is to embrace the principles of the international conventions that China has acceded to in the related Chinese law, which is a monistic approach. Take the China Maritime Code, for instance, Chapter 8 on the

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[21] Details concerning the tacit acceptance procedure, see discussion in Chapter 4.

[22] Yu X., Case on Limitation of Liability for Oil Pollution Damage Compensation, Guangzhou Maritime Court Cases, 24 March 2003; the same view was upheld by Hu, J. and Yang B., Application of Law in Civil Liability for Oil Pollution Damage Caused by Coastal Vessels in China, in: Faure, M. and Hu, J. (eds), Prevention and Compensation of Marine Pollution Damage, Kluwer Law International, the Netherlands, 2006, p193-205.

[23] See Zheng, H., Private International Law in the People's Republic of China: Principles and Procedures, Texas International Law Journal, Vol.21, 1987, p261. There are opinions that the government should enact a code of private international law, see Huang J., Concerning the Scope of Private International Law and Other Theoretical Issues, Journal of China's Legal System (Zhong Guo Fa Zhi Bao), 11 November 1985, p3; see also Li, S., Several Issues in the Theoretical Research and Legislation of Private International Law in Our Country, Forum of Law and Politics, No.3, 1986, p62, 66.

collision of ships is *de facto* based on the principles set up by the Collision Convention 1910 which was ratified by China, although there is no reference to this convention.[24] In this respect, Article 66 of MEPL 1999 is obviously based on the general principles of the CLC and the Fund, although there are criticisms concerning the provisions, as will be discussed later.

It is interesting to observe the practice that when Chinese government has signed or ratified some international convention, the competent authority which is the Ministry of Communication will distribute a notice to the relevant parties, mainly to inform the parties concerned of the time at which the international convention comes into force in China. However, this kind of notice is mainly the indication of the date on which the relevant conventions came into force and do not specify how they should be implemented in Chinese legal system. An example of this kind is an announcement published by the Ministry of Communication of China on 11 November 2003.[25] This notice stated that the 2000 Amendments to the CLC and the Fund Conventions have come into force as of 1 November 2003, and the compensation limits have thus been increased by 50.37%. "China is a Contracting Party to these two conventions, but the Fund Convention only applies to Hong Kong SAR. As a result, the Amendment to CLC is effective in China as well, but the Amendment to the Fund Convention is only effective in Hong Kong SAR. We hereby print these two Amendments, and please act accordingly."

3. Evaluation

Some observations can be made on the basis of the brief overview of the current legal system on oil pollution compensation in China:

First, none of the above-mentioned Chinese statutes has specific and clear provisions on who should assume the liability for oil pollution compensation, and what is the exact scope of damages to be compensated. However, one can see from these legislations that the general principle is that those who are responsible for the discharges shall be held liable, and at least as far as cleanup costs and state losses are concerned, it is the shipowner who should be held liable. As for the losses sustained by the fisherman, there is no specific provision on whether such damages are recoverable.

Second, although there is a provision on limitation of liability for the shipowner in the China Maritime Code and in the CLC, it is not clear if such limitation right is permitted in case of oil spills, or if the CLC should apply. Moreover, even if the limitation is granted under the China Maritime Code, there is a difference in amount with the ones under the CLC, which may lead to discrimination between different vessels, depending on whether Chinese law or the CLC applies.

[24] Han L. and Guan Z., The Enforcement of International Conventions for the Prevention of Pollution from Ships and Compensation for Pollution Damage in China, in: Faure, M. and Hu, J. (eds), Prevention and Compensation of Marine Pollution Damage, Kluwer Law International, the Netherlands, 2006, p181-191.

[25] Notice of the Ministry of Communication, No.16, "Notice concerning the coming into effect of the 2000 Amendments to the International Convention on Civil Liability for Oil Pollution Damage, 1992 and to the International Convention on the Establishment of International Funds for Compensation for Oil Pollution Damage, 1992", 11 November 2003.

III. Existing problems

As mentioned before, there is so far not yet a specialized legislation in China specifically dealing with the marine oil pollution issue, nor a separate Chapter in the MEPL 1999 or the China Maritime Code concerning oil pollution damage compensation. Moreover, due to the lack of explicit rules of private international law, the application of the CLC in China is not harmonized. Hence, the civil liability and compensation for marine oil pollution in China largely depends on the maritime courts' decisions. Different interpretations given by different courts lead to lots of problems in practice, as will be discussed below.

1. Conflicts of law in China

The conflict of law seems only a procedural issue, but it has direct influence on the outcome of the claim as a result of different laws being applied in one particular case. As mentioned before, the rules of private international law in China currently exist in various individual statutes dealing with specific areas of law.

There is no specific provision on how to apply the international conventions joined by the Chinese government in the Constitution. One may find a reference in the General Principles of the Civil Law Article 142 (2) which has established the supremacy of international conventions when provisions in national law differ from the convention. Such a principle is that in case of conflict between the international convention to which China is a party and the domestic law, the international convention shall prevail unless a reservation has been made by the Chinese government. The China Maritime Code[26] and the Marine Environment Protection Law[27] both follow such a rule to give priority to international conventions.

The application of this seemingly obvious and simple principle is problematic in practice. Legal scholars and courts have different opinions on the application of this principle. There are two major opinions:

The first opinion holds that the Chinese law should apply in purely domestic issues and the international convention applies only when a "foreign element" is involved.[28] The arguments to justify this opinion are as follows: Article 268 of the China Maritime Code which recognizes the supremacy of international convention is provided in the Chapter titled "Application of Law in Relation to Foreign-related Matters".[29] This implies that the international conventions shall

[26] Art.268 (1) of China Maritime Code reads: "If any international treaty concluded or acceded to by the People's Republic of China contains provisions differing from those contained in this Code, the provisions of the relevant international treaty shall apply, unless the provisions are those on which the People's Republic of China has announced reservations."

[27] Art 97 of Marine Environment Protection Law 1999 reads: "If the provisions provided in an international treaty regarding environment protection concluded or acceded to by the People's Republic of China are not consistent with the provisions provided in this law, the provisions of the international treaty shall apply, unless the People's Republic of China has announced reservations."

[28] See Zheng, H., Private International Law in the People's Republic of China: Principles and Procedures, Texas International Law Journal, Vol.21, 1987, p233.

[29] Article 142 of the General Principles of Civil Law which recognizes the same principle is also under a separate chapter "Chapter VIII Application of Law in Civil Relations with Foreigners".Article 189 of the Civil Procedure Law follows the same model.

apply only when there is "foreign element" involved.[30] As for the pure domestic issue, it is only the Chinese law that shall be applied. This can be further confirmed by the sovereignty of states that should not be interfered.[31] Moreover, in the Notice on Implementing the International Convention on Civil Liability for Marine Oil Pollution 1992 promulgated by the Ministry of Communications in 2000 (No. [2000]15), it is specifically provided that the CLC 1992 shall not apply to the coastal vessels and inland water vessels.[32] Some scholars also argued that the reason behind the newly added Article 66 of MEPL is to avoid the direct application of CLC in China to all cases, and to stress the importance of domestic law in the process of handling marine pollution cases.[33] Another argument which is employed as legal basis for this opinion is found in the Regulations 1983. Article 13 of the Regulations stipulates that "Vessels engaged in international trade with a bulk oil carrying capacity of 2,000 tons shall, besides observing these Regulations, be bound by the provisions of the International Conventions on Civil Liability for Oil Pollution Damage, 1969." As a result, for the vessels not navigating on international lanes, being the offshore and inland water navigating ships, national law shall apply. There are many scholars in favor of this opinion and this opinion is mostly followed in practice.[34] The new version of the Regulations provide in Article 52 provides that for marine pollution in the territorial waters under the jurisdiction of the PRC caused by ships carrying persistent oil in bulk, the limitation of liability under the relevant international conventions (mainly the CLC) shall apply. However, it does not specify the incidents occurred in coastal and inland waters, and hence does not end the debate on application of law in purely domestic oil pollution cases.

The second opinion holds that the CLC should apply in all cases. The argument given is that although the rule that international conventions prevail is indeed provided in a separate chapter on foreign-related issues in the General Principles of the Civil Law and the China Maritime Code, it does not necessarily mean that the international convention should not apply to cases where no foreign elements are involved. The Regulations do not state to the contrary either. Moreover, the Marine Environment Protection Law 1999 does not even have a separate chapter dealing with the so-called foreign-related issues, which implies that the same rules shall apply in marine environmental protection. A third argument can be found in the preamble of CLC Convention where it is stated that the convention was aiming to "adopt uniform international rules and procedures for determining questions of liability and providing adequate compensation". Thus the international convention was designed for uniformity, not differentiating between internationally navigating vessels and offshore vessels. Hence, the international convention shall apply to all cases to avoid complications and to maintain uniformity, so it is held.[35]

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[30] The Supreme Court in its "suggestions concerning certain question relating to the application of the General Principles of the Civil Law" explains in Article 178 that foreign-related relations include those where the subject, object or content is foreign related. See Han Lixin & Si Yuzhuo, The Issues concerning civil liability for oil pollution damage caused by collision of ships", June 2004, p32.

[31] Vienna Convention on the Law of Treaties stipulates in the preamble "Having in mind the principles of international law… the sovereign equality and independence of all states, of non-interference in the domestic affairs of states…"

[32] In China, the coastal and inland water service is reserved for Chinese flag ship only.

[33] Hu, J. and Yang B., 2006, p193-205.

[34] Zhao L., Legal Issues in Marine Oil Pollution (original text in Chinese: Hai Shang You Wu Chu Li Zhong De Ruo Gan Fa Lu Wen Ti), International Seminar on Compensation Regime for Ship-source Pollution Damage, Shanghai, June 2001.

[35] See Yu X., 2003; Yu X., Oil Pollution Liability of Colliding Vessels in China, Lloyd's Maritime and Commercial Law Quarterly, 2001, p19-23.

It indeed happens in practice that in cases where only Chinese offshore vessels are involved, different maritime courts apply different rules: those laid down in the international convention or those in the Chinese law. This leads to confusions as court decisions are not consistent with each other. For instance, in two cases where all parties involved are Chinese, the Qingdao maritime court ruled in 1994 that the request to apply the CLC should be rejected because there is no foreign element involved, whereas the Guangzhou maritime court in the "Min Ran Gong 2" case in 1999 granted the limitation under the CLC to the shipowners and refused the application of Chinese laws.[36]

2. Compulsory insurance

Under the first opinion where the international conventions and domestic law apply in different cases depending on whether foreign element is involved, problems arise with respect to the oil pollution liability insurance. There is an obligation for tankers to take liability insurance under the CLC, while under the MEPL there is only a general principle requiring the state to establish the compulsory insurance mechanism in Article 66, which is not effectively implemented in practice. Although the Regulations 2009 also require ships to take insurance, this is still a general provision with reference to CMC or relevant international conventions, and it does not clarify the current confusion.

Under the second opinion where the international convention applies to all oil spill compensation cases, the problem of liability insurance still exists. According to the CLC, tankers of less than 2000 tonnes are not under the obligation to obtain insurance, but these small tankers are often employed by private owners in China for coastal water shipping. According to statistics, among the 2300 tankers operating on domestic lines, 80% of them are below 1000 gross tons.[37] These small tankers are often badly maintained and pose the biggest risk of oil spills in Chinese water. Thus, even when the CLC is uniformly applied in China, there will still be large number of small tankers of less than 2000 tons operating in Chinese water without maintaining the liability insurance. When they spill oil in the water and cause damage, their owners are often financially incapable of paying sufficient compensation due to a lack of insurance.

The current situation in China is that the oil pollution liability insurance among the ships navigating on international lanes is all solved: all tankers of more than 2000 tons navigating on international lanes have taken out insurance. As for ships engaged in coastal or inland water shipping and tankers under 2,000 tonnes, such insurance is not effectively implemented. For coastal tankers, 10% of them are insured against oil pollution liability, while for inland water tankers, almost none of them takes such liability insurance.[38] In practice, in those cases only a letter of credit is needed, following the instructions from the Ministry of Communications. This discrepancy affects China's oil pollution compensation system as a whole.

[36] Han L. and Guan Z., 2006, p181-191.
[37] Liu H., Liability System on Marine Oil Pollution in China and Suggestion on the Ratification of the Bunker Convention, China Maritime Law Association Newsletter, Vol.65, September 2002, p27.
[38] Wang H. C., 2005, p9.

According to a statistical overview of major oil spills (more than 50 tonnes of oil spilled) between 1973 and 1996 in China, all the spills involving internationally trading ships have been compensated; on the other hand, for the spills involving only ships navigating on domestic lines in China, only 37% of them could achieve compensation.[39] This evidence shows that the absence of a requirement of financial security for cabotage vessels leads to insufficient compensation of oil pollution damage. Hence, the question on how to ensure that the small privately owned ships are also properly insured and can meet the costs of pollution claims when they occur would be crucial for the compensation regime in China.[40]

3. Limitation of liability

Questions arise if the first opinion applies as the limitation amounts under the China Maritime Code and the CLC are different. When the limitation amount under CLC applies to cases where foreign elements are involved, and China Maritime Code applies to purely domestic tankers, tankers of the same size may be confronted with different limits. Moreover, as shown above the limitation under the China Maritime Code is much lower than those under the CLC. The lower limitation amount under the China Maritime Code is very likely to be insufficient in many cases. Moreover, the difference in standards will cause complications and will not facilitate the development of the shipping industry.[41]

Under the second opinion, being that the CLC applies in all cases of oil pollution compensation, as far as limitation of liability is concerned, it may provide a higher amount of compensation to the victims only under the strict assumption that the compulsory insurance mechanism is well implemented. Although the limitation amount provided under CLC is higher compared with the China Maritime Code, if the shipowner is not insured up to this amount, he will not be able to pay such a high amount due to his restricted financial capacity. As a result, the high limitation amount without any form of financial guarantee is in vain. Moreover, as mentioned before, the compulsory insurance under the CLC only applies to tankers over 2,000 tons. The practice in China is that so many small tankers are involved particularly in the coastal service and in domestic lines, which are thus not under the obligation to obtain insurance. The owners of such vessels, very often have only one single ship or they erect a separate legal entity for every ship in order to evade liability. In case of an oil spill occurring to their vessels, they would be insolvent, and due to the lack of insurance mechanism, the victim would not get sufficient compensation.

4. No compensation fund in China

Although the Regulations 2009 provide in theory the establishment of a domestic fund, the general wording of Article 56 and references to implementing measures that are still to be taken

[39] Research conducted by the Institute of Scientific Research under the Ministry of Communications in Beijing. This was also highlighted at a seminar on compensation regime for ship-source marine pollution damage, organized by the Shanghai Maritime Safety Administration in June 2001.

[40] This was also the main topic at a recent seminar at the London Shipping Law Centre, it was reported that the European Commission, it was suggested that one of the criteria for deciding whether a compensation regime is satisfactory was whether it discouraged operators from using vessels of less than top quality, see Lloyd's List, Law Section, July 3 2002.

[41] See Xia, C., Limitation of liability for maritime claims. A study of US law, Chinese law and international conventions, The Hague, Kluwer Law International, 2001, p148.

make it clear that it will still take a long time before a Chinese oil pollution compensation fund can be established in practice. A few observations may help understand why it is such a long process in China to resolve this issue.

First of all, the mainland China has not yet acceded to the Fund Convention (and will likely not accede to the Fund Convention at all given the provision in Regulations 2009 on the establishment of a domestic fund). This might have to do with the social system in China. According the Fund Convention, the oil industry that has large import volumes has to pay a contribution to the Fund. In China many oil companies are state-owned. For instance, Sinopec and PetroChina which control 85% of the country's total crude import are state owned.[42] To join the Fund convention would mean that they would have to contribute financially to the Fund. If calculated on the basis of the annual report of the Fund of 2004, the contribution of the oil industry in China would be the third among all countries (only next to Japan and Italy), which will reach 58.1 million RMB.[43] This may explain China's reluctance to join the Fund Convention.

Second, there is no requirement for a compensation fund in the Chinese law until 2000 when the revised MEPL came into force. Thus, the establishment of a compensation fund now has a legal foundation through the revision of the Marine Environment Protection Law.[44] However, Article 66 of the MEPL is only a general requirement which is not effectively implemented yet. Article 56 of Regulations 2009 seems an improvement in the sense that it for the first time in Chinese legislation specifies that a domestic fund shall be established.

At this moment spills from small ships in Chinese waters seem to be the more problematic ones, but there is of course an increasing risk, given the huge increase in volumes of imported oil and the growth of the shipping industry, that a major spill will exceed the owner's limits provided for in the CLC, giving rise to problems of inadequate compensation under the CLC Convention as well.[45]

5. Summary

The result of no clear provisions in Chinese law neither on compulsory insurance nor on the compensation fund, in combination with the low limits of liability under the China Maritime Code, is that victims of oil pollution in China are often left in a disadvantageous position with insufficient compensation or no compensation at all. Even when the CLC is uniformly applied, for a purely domestic issue as well, given the particular situation of China, still problems arise. Indeed, in China small size tankers are mostly employed, and the compulsory insurance requirement is not obliged for these small tankers. Therefore, the higher limitation amount under the CLC seems better in theory, but may not be effective to influence the practice in China, given

[42] Lloyd's List Maritime Asia, spring 2004, p19.
[43] Wang H. C., 2005, p10. The contributing oil of Hong Kong in 2004 is 3.9387 million tons.
[44] See on the procedure to assess the damage to the marine environment in China, Wang, M., Liu S. and Shen, M., The normal procedure of assessment of damage to the marine environment in Chinese judicial practice, in: De la Rue, C. (ed.), Liability for damage to the marine environment, Lloyds of London Press, London, 1993, p29-31.
[45] For a discussion of the Chinese position see also Xia, C., 2001, p148-149.

the fact that the requirement to purchase compulsory insurance only applies under the CLC for tankers above 2,000 tonnes.

Moreover, among the ships carrying oil on domestic lines, a large number of them are small tankers which are privately owned. Some of these shipowners have only one single vessel registered under their names, which lowers their financial capability in case of liability. Some of these tankers are badly maintained old tankers, or with single hulls, which increases the potential accident risk.[46] Under this situation, the shipowner is often insolvent so that he is unable to pay the full compensation; when the pollution damage exceeds the ship owner's liability, the surplus part cannot be paid.

China has not yet established a complete system for oil pollution compensation that can constitute a definite financial source for oil pollution damage. The pollution damages are often inadequately compensated, and thus great social losses are incurred. As a consequence, clean up activities and preventive measures are not encouraged either.[47]

IV. Current researches

Realizing the existing problems with respect to the current system of civil liability for marine oil pollution, concerned with the difficulties confronted by the oil pollution victims in recovering their damages, the Chinese government at central level has carried out research on the Chinese system of marine oil pollution compensation. This research has gained wide support from the local authority, especially the Tianjin Maritime Safety Administration.

1. Research on the Chinese compensation mechanism

The Chinese law on marine oil pollution is obviously outdated now and it is imperative for China to improve its current compensation mechanism to deal with the growing risks of marine oil pollution. China has not acceded to the Fund Convention and there is no institution like a fund working as a second layer to protect the victims. As a result, on the one hand the tanker owner will be faced with a huge liability for pollution damage, which will not facilitate the development of the industry. On the other hand, the victims will not get sufficient nor timely compensation. More particularly the rescue and salvage costs will not be reimbursed timely and the marine environment may not be restored. The Chinese government realised the necessity of a better compensation system and has been preparing for a change in legal institution in this respect. Between 2000 and 2001, under the auspices of the Ministry of Communication, a research on "the establishment and implementation of Chinese compensation system for ship source oil pollution damage" was carried out.

In reply to a questionnaire from the Institute of Scientific Research of the Ministry of

[46] Wang, H. C., 2005, p10.

[47] Liu, H. and Zhou, Z., Setting up the Chinese Characteristic compensation system for oil pollution damage from vessels (original text in Chinese, Jian Li You Zhong Guo Te Se de Chuan Bo You Wu Sun Hai Pei Chang Ji Zhi), International Seminar on Compensation Regime for Ship-source Marine Pollution Damage, Shanghai, June 2001.

Communication, most shipping companies considered it a necessity to purchase compulsory insurance, which will not only avoid dramatic losses to the shipping industry but also contribute to the protection of the marine environment. Moreover, the leading shipping companies in China, like the China Shipping and China Ocean Shipping Company (COSCO) have already obtained compulsory insurance for their tanker fleets. The shipping industry is fully aware of the risk of oil pollution, and a contribution by the Fund will surely contribute to alleviate the damaging effect on the shipping industry when an oil spill happens, so they will fully support it if the Chinese government decides to accede to the Fund Convention. The oil industry, on the other hand, was afraid that the accession to the Fund Convention would impose an excessively heavy burden on the industry since they would be the contributor to the Fund. However, they have expressed their willingness to compromise in the national interest to protect the environment. The major concern of the Chinese government is to strike the balance between the economic development and the protection of the environment. It realized that the financial burden imposed on the oil industry through the contribution to the Fund may indeed not be beneficial to China's economic development at the current stage. Thus, it might not seem an efficient solution to China since the actual costs would exceed the potential benefits.[48] Hence, the research suggested that the Chinese marine oil pollution compensation system should correspond with the Chinese economy, the financial capacity of the shipowner, the compensation demand and the insurance supply, the proper proportion of the insurance and the fund.[49] Through extensive investigation, it is thus proposed that the establishment of a domestic fund may be more practical and more suitable for the present situation in China.

It is also suggested in the research report that taking into account the current situation in China, the Chinese mechanism should follow the general principles established under the international conventions, being the cost sharing between the shipping and the oil industry, and it may be implemented in a step by step approach.[50] The research indicated that the Chinese oil pollution compensation mechanism shall be implemented in two phases. In the first phase, the relevant legislations and regulations should be improved, and the compulsory insurance mechanism as well as a domestic fund should be launched. It was proposed that the 2,000 tons minimum requirement for compulsory insurance should be abolished, and tankers of all sizes operating in Chinese waters shall be required to obtain insurance. The amount of insurance thus will be divided into four categories, depending on the tonnage of the tankers.[51] In the second phase, the insurance amount and the contribution from the oil industry should be increased to get in line with the international standards. However, in the first phase, problems may arise as the insurance amount and the contribution collected from the oil industry may be at a lower level than what would be needed to provide sufficient compensation for major spills. However, the Chinese government is very positive that this will only be a preliminary measure. It is hoped that with the economic development of China, in the near future, the shipping, oil and insurance industries will be developed to such an extent that they will be able to accommodate the higher amounts

[48] Lao, H., (from the Environment Protection Centre of the Ministry of Communication), On China Oil Pollution Compensation System (original text in Chinese: Guan Yu Wo Guo You Wu Sun Hai Pei Chang Zhi Du Wen Ti), International Seminar on Compensation Regime for Ship-source Marine Pollution Damage, Shanghai, June 2001.
[49] Lao, H., 2001, p11.
[50] Liu, H. and Zhou, Z., Establishing a Chinese Compensation Mechanism for Ship Oil Pollution, Institute of Scientific Research under the Ministry of Communications, Beijing, 2002.
[51] Wang, H.C., 2005, p11.

required under the international conventions.

Table1. Amount of compulsory insurance proposed by the report of the Ministry of Communication

Compulsory insurance	Ship tonnage	Offshore Amount	Inland waters Amount
Persistent oil	≤ 100 tons	2 million RMB	500,000 RMB
	101-200 tons	2 million RMB	1 million RMB
	201-500 tons	2 million RMB	1.5 million RMB
	> 500 tons	+ 1000/ton RMB	+ 1000/ton RMB
	Overall ceiling	10 million RMB	5 million RMB
Non-persistent oil		Half of the persistent oil	Half of the persistent oil

Table 2 Chinese domestic Fund as proposed by the Ministry of Communication

Compensation of the Fund	Offshore: 20 million RMB	Inland water:10 million RMB
Contribution to the Fund	Persistent oil: 0.4 RMB /ton	
	Non-persistent oil: 0.2RMB /ton	

2. Collection and management of the domestic fund

In August 2003, the Ministry of Communication and the Ministry of Finance have jointly drafted a document concerning "the method of the collection and management of a Chinese ship source oil pollution compensation fund", and it was submitted to the State Council for approval.[52]

In that document, it is proposed that the compensation from the domestic fund should give priority to cleanup costs and that it shall follow such an order: first, the expenses incurred as emergency reaction; second, the monitoring and control; and third, the natural resource damage. This clearly shows the goal of the legislator is to encourage cleanup activities once an oil spill occurs.

V. Concluding remarks

1. As discussed above, the current legislations and regulations in China are ambiguous with respect to the civil liability for marine oil pollution. The first step for the Chinese legislation should probably be the clarification of the confusions in domestic legislation. As indicated through the above analysis, the uniform application of international conventions (mainly the CLC) does not provide a satisfactory solution to the problem of oil pollution compensation in the particular context of China.

2. The amounts available for compensation under Chinese law are, as described above, far lower than even the caps provided for under the CLC. More seriously, there is only a general requirement of financial security in Chinese national law, which is not effectively implemented

[52] Wang, H. C., 2005, p11.

at all. Given the insolvency risk, the Chinese legislation should give priority to specify the duty for tanker owners to purchase financial security to an accurate and applicable extent (instead of only one general provision on the state to ensure the compulsory insurance system in Article 66 of the Marine Environment Protection Law). As the analysis above indicated, the international model may not solve all the practical problems confronted by China. For instance, the minimum tonnage requirement under CLC (which means tankers of lower than 2000 tonnes are not obliged to take insurance) may still leave the gap of small tankers which are often employed in Chinese waters and cause pollution. Thus, a scheme as suggested in the research performed by the Ministry of Communication which takes into account the wide employment of small tankers seems to fit better for the Chinese practice than the international regime.

Some ports in China have been, in cooperation with insurance companies, working on an approach for oil pollution insurance that is applicable to small tankers. For instance, Shanghai, as the biggest coastal port in China, has worked out together with the Shanghai Branch of the People's Insurance Company of China, a method to provide insurance for small oil carriers of less than 200dwt within Shanghai port. This approach applies various levels of insurance values and compensation limits depending on the tonnages of oil carriers. It is not exactly the same as proposed in the research of the Ministry of Communication, but the basic idea of differentiation according to tonnage of the tankers is the same. This approach is not effective when small cabotage oil carriers from other ports are involved. However, it is already considered a big step forward.

3. China has not acceded to the Fund Convention and there is no institution like a fund working as a second layer to protect the victims. As a result, on the one hand the tanker owner will be faced with huge liability of pollution damage, which will not facilitate the development of the industry. On the other hand, the victims will not get sufficient compensation in time, especially the rescue and salvage costs will not be reimbursed timely and the marine environment may not be restored. The domestic-line vessels are far inferior to its international-line vessels in terms of ship age and technical conditions. Hence, they increase the risks to the port safety and the aquatic environment.

The immediate accession to the Fund Convention may provide benefits for the oil pollution victims in China, but the oil industry may be under influence as well. The fact that the oil industry in China is mainly state owned does influence the decision of the Chinese government not to accede to the Fund Convention at the current stage. However, considering the need of environmental protection while not discouraging economic development, the Chinese government is inclined to establish a domestic fund. This domestic fund may well be a first step in the direction of China's accession to the IOPC fund. As China is already a shipping giant, it is being imperative to set up its own compensation mechanism to deal with the growing ship oil pollution.

Chapter 8 Comparative Analysis

I. Introduction

The international, the US and the Chinese oil pollution liability regimes have been examined separately. In this chapter, these three liability regimes will be submitted to a comparative analysis.

Both the international and the US regimes on oil pollution compensation share the same structure in the sense that they both consist of at least two tiers, the liability imposed on the shipping industry as the first tier of liability and a second layer imposed on the oil industry, supplementary to the first tier. China is only a contracting state to the CLC 1992, not the Fund Convention. Thus, the particular situation in China makes it different than the other two systems.

At first sight, all the three liability regimes take different forms. At international level, it is the specialized conventions that particularly deal with oil pollution compensation issue; in the US, the approach is to cover as many as possible aspects of oil pollution and related issues in one statute; in China, there is no special legislation concerning the liability for marine oil pollution damage, hence, for the issue of oil pollution liability, one may need to consult various Chinese domestic laws. However, China is a contracting party to the CLC, but how and to what extent the CLC is implemented in Chinese law is not clear due to the vague provisions in relevant Chinese legislations. Chinese regime on oil pollution damage is an incomplete system in the sense it has not ratified the Fund Convention. Thus the Chinese oil pollution liability regime may serve as an interesting example for those countries that have ratified only the CLC, but not the Fund Convention.[1] Moreover, OPA deals with both prevention of and liability for oil pollution, and it covers oil pollution from vessels, onshore facilities, offshore facilities, deepwater ports, pipeline and abandonment. Hence, it might be difficult to evaluate the overall effectiveness and efficiency of OPA vis-à-vis the other regimes. All these complexities might not facilitate a comparative study of the three regimes.

The comparative study of the three different regimes will only focus on the relevant aspects concerning civil liability and compensation for marine oil pollution damage. The international regime has gone through several times changes through history. In this analysis, the most recent version of the liability regime, being CLC 1992 and Fund Convention, with the updated amount as prescribed in the 2000 Protocols, and a Supplementary Fund, will be compared with the US OPA also in its updated form. As the Chinese regime is partially the application of the CLC, and the complicated issues such as the application of international conventions in China are peculiar to the Chinese system, in the comparative analysis, Chinese system will be mentioned only when the domestic law has specific provision and such provision substantially differs than the CLC provisions.

[1] As of 20 May 2008, there are still 17 states that are parties to the CLC 1992, but not to the Fund Convention 1992. Source of information, website of the Fund: www.iopcfund.org.

II. Basis of liability

1. General comparison

The CLC, OPA and Chinese law all base the liability systems for oil pollution damage on the principle of strict liability. CLC 1992 provides in Article III.1 that "the owner of a ship at the time of an incident" should be held liable for the pollution damage caused. Section 1002 (a) of OPA provides that each "responsible party for a vessel … from which oil is discharged, or which poses the substantial threat of a discharge of oil… is liable…" In Chinese law, the Marine Environmental Protection Law provides in Article 90 that "Those who cause pollution damage to the marine environment shall eliminate the damage and compensate the losses". Thus, all the three legal regimes impose strict liability, although the parties to be held liable are different. Under the CLC, it is the tanker owner that is to be held liable; under the US, it is the "responsible party" for a discharging vessel that should be held liable; in Chinese law, it is the polluter who should be held liable.

Another major difference of these three liability systems lies in the fact that there is a so-called channelling provision in the CLC which specifically excludes the liability of some potential liable parties, but such a channelling provision is lacking in OPA. This difference leads to different positions of related parties when a lawsuit is brought for oil pollution damage under the different regimes.

2. Liable parties

2.1 Definition of liable parties

The shipowner under the CLC is the persons(s) "registered as the owner of the ship, or in the absence of registration, the person or persons owning the ship". (Article I.3) Hence, the focus is on registration, and it does not matter if the party has actual control over the activities or not. It is therefore likely that persons such as a financial creditor who plays no part in the management or operation of the ship but only has "passive interest" in the vessel may be held liable.[2]

OPA provides in 33 U.S.C. §2702 (a) that the liability shall be imposed on a wide encompassing concept known as the "responsible party", which is defined in 33 U.S.C. §2701 (32) to be the "person owning, operating or demise chartering the vessel". Hence, the liability is imposed on the shipowner, operator or demise charterer. Third party whose act or omission is found to be the sole cause of the incident can also be held liable.[3]

China Marine Environmental Protection Law in Article 90 simply provides "those who cause pollution damage" shall be held liable. This definition compared with the definitions in the CLC and OPA is rather general and vague. Although one may argue that this complies with the "polluter pays principle" in environmental law, without an accurate definition of "polluter", it remains doubtful whether it can be effectively implemented in practice. Indeed, as examined in

[2] De la Rue, C. and Anderson, C., 1998, p78-79 and p671-696.
[3] §2702 (d) (1) (A).

Chapter 7, in Chinese maritime law practice, it is only the shipowner on whom the liability is imposed, and the liability of other parties is de facto excluded. Therefore, an "implicit channelling" rule is followed in the Chinese practice for marine oil pollution compensation.

An important question may arise when applying the definition whether and how far a court may pierce the corporate veil to reach the assets of a parent company or other associated entities.

The definition of shipowner in the CLC stressed the importance of being registered as owner, hence, there is no possibility to impose liability on other parties although they might exercise control over the registered shipowner.[4] However, a question may arise whether the liability of the shipowner can be enforced against other related parties. For instance, when the tanker is not under an obligation to take out liability insurance (tankers less than 2000 tons are not required to take out liability insurance under the CLC) or when the tanker owner is financially insolvent, the question may arise whether the corporate veil may be pierced, with the result that a parent company is held accountable for the liability of a shipowning subsidiary, or the liability of the shipowner is enforced against the assets of a parent company or other associated entities.[5] This is an issue not regulated by the CLC, thus the possibilities of piercing may depend upon the national laws implementing the CLC.

Under OPA, there is no restriction on the liable party that an owner has to be the "registered owner" as provided in the CLC, the general theory of lifting a corporate veil to impose liability is also applied in the context of marine oil pollution.[6] The US is considered in legal doctrine to be the most developed jurisprudence for piercing the corporate veil.[7] Moreover, there is also possibility under OPA that a parent or subsidiary company could be considered as an operator within the terms of OPA and thus held liable.

The leading case in this respect remains In re Amoco Cadiz Oil Spill.[8] In this litigation, the Court held Standard oil Company (Indiana) liable as the *alter ego* of its shipowning and ship management subsidiaries for the oil spill. Although the court appeared to apply traditional concepts by holding that "Standard exercised such control over its subsidiaries AIOC and Transport that those entities would be considered to be mere instrumentalities of Standard", it also found that Standard was liable for the negligence of its subsidiaries under an "intragroup" or "enterprise" theory of liability, pursuant to which tort liability may be imposed on a parent when its subsidiaries constitute a single economic entity, despite fragmentation by separate incorporation. The court held: "as an integrated multinational corporation which is engaged through a system of subsidiaries in the exploration, production, refining, transportation and sale of petroleum products throughout the world, Standard is responsible for the tortuous acts of its wholly-owned subsidiaries and instrumentalities, AIOC and Transport."[9] The Amoco Cadiz

[4] The same view was held by De la Rue, C. and Anderson, C., 1998, p661.
[5] De la Rue, C. and Anderson, C., 1998, p660-669.
[6] Miller, W. T., A Summary of Intragroup Liability in Light of the Oil Pollution Act 1990, 2 (documents contained in documentation of conference "Oil Pollution – Claims, Liability and Environmental Concerns".), IBC 23 October 1991, p3.
[7] De la Rue, C. and Anderson, C.,1998, p661.
[8] 1984 A.M.C.2123 (N.D.III.1984).
[9] Ibid, at 2194, from De la Rue, C. and Anderson, C., 1998, p666.

represents an expansion of the traditional veil-piercing theories. It suggests that courts may adopt a more liberal veil-piercing standard to achieve the public policy goal of full recovery of environmental damages.[10] The risk of shareholder liability is thus greater under US environmental laws than under general corporate principles in view of the public policy goals of environmental statutes.[11]

The court imposed joint and several liability on the parent company (Standard) and both its subsidiaries (AIOC and Transport):
Standard exercised such control over its subsidiaries AIOC and Transport that those entities would be considered to be mere instrumentalities of Standard… Standard therefore is liable for its own negligence and the negligence of AIOC and Transport with respect to the design, operation, maintenance, repair and crew training of Amoco Cadiz.[12]
Moreover, all three companies were denied the right to limit liability.[13]

2.2 Channelling in the CLC

As mentioned before, one of the most characteristic features of the international marine oil pollution compensation regime is the channelling of liability towards the shipowner. Different than the CLC 1969, which simply provided that the "servants or agents" of the shipowner were to be excluded from taking liability, the CLC 1992 has listed the parties that should be excluded from the liable party in Article III (4). These include:
"(a) the servants or agents of the owner or the members of the crew;
(b) the pilot or any other person who, without being a member of the crew, performs services for the ship;
(c) any charterer (howsoever described, including a bareboat charterer), manager or operator of the ship;
(d) any person performing salvage operations with the consent of the owner or on the instructions of a competent public authority;
(e) any person taking preventive measures
(f) all servants or agents of persons mentioned in subparagraphs (c), (d) and (e)".

The CLC 1992 thus lays down further restrictions for the potential liable parties. In addition to the servants and agents of the shipowner, the liability of pilot, charterer, salvager and those taking preventive measures is all excluded. Hence, claims may be lodged only against very limited number of persons under the CLC 1992. Therefore, some commentators observed that the further channelling of CLC 1992 actually shows a trend towards limiting access for victims to seek compensation from key actors.[14]

Under the CLC 1969, when only servants or agents are protected by the channelling provision, plenty of scope is left for claimants to sue independent contractors under general principles of

[10] De la Rue, C. and Anderson, C., 1998, p665.
[11] De la Rue, C. and Anderson, C., 1998, p667.
[12] [1984] 2 Lloyd's Report 304, p338.
[13] [1984] 2 Lloyd's Report 304, p339; 1992 AMC 913, p937-941.
[14] Vanheule, B., 2003, p553.

tort law. Lots of parties are vulnerable to this type of lawsuit as they may be in law and fact not acting as the agent, manager or operator. These mainly include, the ship's builder, repairer, classification society, salvor or bareboat charterer.[15] However, in contrast, when the listed parties are specifically excluded from assuming liability, one direct result of such provision is that relevant parties may be put in a different position under 1992 regime than under the CLC 1969. In this respect, some parties may be worth particular attentions:

First, as for the pilot, it was said that the chances of a spill are higher in coastal and piloted waters than in the open sea, hence the pilot needs special protection.[16] However, the position of a pilot under the CLC 1969 was not so clear. A pilot may be employed by a harbor authority and in that case he would be an independent contractor vis-à-vis the harbor authority. Hence, he may be considered servant or agent of the shipowner and thus exempted under the CLC 1969. However, when there is compulsory pilotage, the pilot may act as the servant or agent of the harbor authority instead of that of the shipowner. Under that circumstance, he may not be protected by the channelling provision. The situation has however changed under the CLC 1992 since the pilots are specifically exempted under Article III (4).

Second, as for the charterer, the traditional rule in maritime law is that the bareboat charterer becomes the owner *pro hac vice*. Thus, as a general rule the bareboat charterer may be subject to personal liability for pollution damage sustained as a result of the fault or neglect of the vessel's crew.[17] The CLC 1969 makes no specific reference to the bareboat charterer, and the CLC 1992 in Article III. 4 (c) particularly articulates that the bareboat charterer shall not be held liable, although he is still subject to the potential recourse actions.[18] Moreover, the CLC 1992 specifically mentions that any charterer "howsoever described" is protected through the channelling provision. This includes the time charterer and voyage charterer. Their liability is hence excluded.

Third, as for the manager and operator, under the CLC 1969, whether an action can be brought against a ship manager or operator is likely to depend on the specific situations of the particular case, including the nature of the relationship between the manager and the shipowner.[19] The opinion of De la Rue is that where independent ship managers are engaged to provide professional services relating to the technical maintenance of the ship, or to crewing or other operational functions, there is a good case for regarding them as agents for the shipowners in carrying out these activities on their behalf. However, it is not necessarily the case that the ship manager and operator can always be considered as the agent or servant of the shipowner, and this to a large extent has to do with how far the corporate veil is to be pierced. Different outcomes may thus be the result.[20] The CLC 1992 specifically excludes any claims for oil pollution against the manager or operator of the ship. However, this does not influence the right of

[15] Abecassis, D., 1983, p58.
[16] Gauci, G., 1997, p95.
[17] De la Rue, C. and Anderson, C., 1998, p616. Discussion on the vicarious liability for bareboat charterer, see De la Rue, C. and Anderson, C.,1998, p614.
[18] For the discussion on whether liability should be imposed on the bareboat charterer, see OR 1984, Vol.1, p296-297.
[19] Gauci, G., 1997, p93-94.
[20] De la Rue, C. and Anderson, C.,1998, p656-657.

recourse action of the shipowner.[21]

Fourth, as for the salvors, in general, they are not considered as the servants of agents of the shipowner, but mainly independent contractors.[22] Thus, the salvors may not be protected under the channelling provision in the CLC 1969. However, in the CLC 1992, it is specifically mentioned in Article III.4 (d) that "any persons performing salvage operations with the consent of the owner or on the instructions of a competent public authority". Thus, the salvors are protected under CLC 1992 "unless the damage resulted from their personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result". (Article III.4 of CLC 1992) Moreover, the shipowner still enjoys the right of recourse action against the salvor. The Tojo Maru case in 1971 is a good illustration of such recourse right of the shipowner.[23]

3. Different positions of some major players

3.1 Introduction

As mentioned before, the different provisions in CLC and OPA may lead to a situation that a party may be confronted with different liability under different regimes. Since the difference in liability under different versions of CLC has been examined, this section will only focus on the comparison between the CLC 1992 and OPA.

3.2 Servants or agents of the owner

It is clear that under the CLC 1992, no claim for compensation under the CLC may be made against the servants or agents of the shipowner. Under OPA, the servants and agents may assume liability following the theory of principal and agent relationship.

3.3 Pilots

The activity of a pilot may well be a contributory cause to an oil spill. He is specifically exempted under the channelling provision in the CLC 1992.

In terms of American law, if a pilot is a member of the crew of the vessel, the shipowner is liable under the rules of *respondent superior* for the negligence of such pilot. If the pilot is an independent contractor, and the pilotage is voluntary, the vessel is liable *in rem* and the shipowner is liable *in personam*, since the pilot is taken on board as a servant. In case of a compulsory pilotage, the vessel is liable *in rem*, but the shipowner is not liable *in personam*.[24]

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[21] Annual Report 1995, IOPC Fund, p68, the Fund considered the possibility of an action in recourse against the ship management company.

[22] Although there can be situations that certain activities of a salvor might be regarded as taken on behalf of the shipowner, normally a salvor is not considered as the servant or agent of the shipowner. For more discussion on the position of the salvors, see De la Rue, C. and Anderson, C.,1998, p561-612; Gauci, G., 1997, p102-103, 189-191.

[23] [1971] 1 Lloyd's Rep.341, HL.

[24] Schoenbaum, T. J., Admiralty and Maritime Law, 2nd Edition, Vol.2, §13-6. For detailed discussion on the

3.4 Bareboat charterer

The traditional rule in maritime law is that the bareboat charterer becomes the owner *pro hac vice*. Thus, as a general rule he is subjected to personal liability for pollution damage sustained as a result of the fault or neglect of the vessel's crew.[25]

The CLC 1992 in Article III. 4 (c) particularly articulates that the bareboat charterer shall not be held liable, although he is still subject to the potential recourse actions. Under OPA, in contrast with the CLC 1992, a bareboat charterer is one of the parties that can be held liable. Some scholars believed that the provision in OPA made it possible to have deeper pockets available from a whole list of individuals being jointly and severally responsible for an oil spill from a vessel, and this list includes a bareboat charterer.[26]

3.5 Time charterer and voyage charterer

Under CLC 1992, any charterer "howsoever described" is protected through the channelling provision. This means the time charterer and voyage charterer's liability is also excluded.

Since OPA specifically mentions that the demise charterer can be held liable, thus it was considered to imply a negative exclusion of the liability of other types of charterers, particularly, time charterer and voyage charterer.[27] The legislative history provides no clarification of these terms, and there has not been a decided case interpreting these terms. In the Coast Guard rule on financial responsibility, in an attempt to clarify the definition of operator, it provides in the preamble that "there are entities, such as agents, 'manager', traditional time charterers and traditional voyage charterers (i.e. charterers who do not take operational responsibility for the vessels they charter) that are not intended to be included in this definition."[28] Hence, by referring to the provisions of CERCLA and cases construing other pollution laws, De la Rue argues that the "operator" for the purpose of OPA shall be the one "who exercises day-to-day control over, and responsibility for, the operational aspects of a vessel. This refers to control over, and responsibility for, the vessel's seaworthiness, crewing, maintenance, and general safety so as to be in a position to minimize the risk of pollution. None of these activities are normally under the control of a time charterer or voyage charterer (as they are with the other two classes – owner and demise charterer) in the typical case and thus a typical time charterer or voyage charterer should not be found to be an operator under OPA-90."[29]

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position of a pilot for the purpose of marine oil pollution liability, see Gauci, G., 1997, p95-97. Gauci also suggested that a pilot, whether under compulsory pilotage or not, could be considered as an operator in terms of OPA.

[25] De la Rue, C. and Anderson, C., 1998, p616. Discussion on the vicarious liability for bareboat charterer, see De la Rue, C. and Anderson, C.,1998, p614.

[26] See particularly Gauci, G., 1997, p92-93.

[27] De la Rue, C. and Anderson, C., 1998.

[28] 59 Fed. Reg.34, 210, 34, 217-218, 1994.

[29] De la Rue, C. and Anderson, C.,1998, p617-619. However, Gauci believed that a time or voyage charterer could be considered as an operator of a vessel for the purpose of OPA and thus to be held liable for oil pollution damage. See also Gauci, G., 1997, p107, fn.34.

There is however no provision under OPA that explicitly excludes the liability of time charterer and voyage charterer, thus they can still be held liable for the pollution damage they have caused under traditional tort law or maritime law. Hence, De la Rue argued that the time charterer or voyage charterer may be liable to the OSLTF or to third party claimants under the common law negligence theory.[30] Negligence is an actionable wrong under the general maritime law, and the standard of care required of a defendant is that of ordinary negligence. OPA implicitly recognizes this concept by providing that the US Attorney General may file suit to recover compensation paid by the Fund against any responsible party or against any other persons who is liable pursuant to any law. (§2715(b)) Thus, when the time or voyage charterer breached a duty of care which is the proximate cause of oil pollution damage to third party, the charterer would be held liable for such damage.

In addition, the element of control proves decisive.[31] The time charterer has a degree of control which may not normally be available to a voyage charterer. Very frequently, the master has to follow the instructions of the charterer, and it is for this reason that the law frequently implies an indemnity into such a charter in favor of the shipowner.[32]

3.6 Manager and operator

The CLC 1992 specifically excludes any claims for oil pollution against the manager or operator of the ship, although this does not influence the right of recourse action of the shipowner.[33]

As for the US, OPA specifically imposes liability on the operator of the vessel, but the term "operator" is not defined. Moreover, the ship manager is not mentioned in the OPA. According to De la Rue, the manager that exercises day-to-day operational responsibility for maintenance, safety and seaworthiness of a vessel is also likely to be considered "operator" for the purpose of liability under OPA.[34] De la Rue made a further distinction between the "technical manager" and the "commercial manager". He argued that the "technical manager" is the one who assumes responsibility for manning and equipping a vessel and who is vested with substantial operational control over the vessel and thus he is subject to liability under OPA as an "operator". On the other hand, the "commercial manager" performs the functions as chartering and scheduling of vessel movements, supplying bunkers, or arranging for supervision of cargo loading and unloading activities. Thus he does not exercise sufficient control over the daily operation of the vessel to be qualified as an "operator".[35] However, there is so far no case law providing guidance with regard to the various types of ship managers.

US Coast Guard regulations relating to financial responsibility in terms of OPA include, *ex*

[30] De la Rue, C. and Anderson, C.,1998, p619, 221.
[31] De la Rue, C. and Anderson, C.,1998, p619-630.
[32] Section 1003 of OPA, 33 USC §2703. Gauci, G., 1997, p107.
[33] Annual Report, IOPC Fund, 1995, p68. The Fund considered the possibility of an action in recourse against the ship management company. See also Gauci, G., 1997, p93-94.
[34] De la Rue and Anderson interpreted the "operator" to be the one who exercises day-to-day management or control over the operation of the vessel. Hence, it may include a ship manager if that manager is operating the ship at the time of the incident. See De la Rue, C. and Anderson, C., 1998, p178 and 659.
[35] De la Rue, C. and Anderson, C., 1998, p659.

pluribus, within the definition of operator, "builder, repairer, scrapper, lessor or seller who is responsible, or who agrees by contract to become responsible, for a vessel".[36] The operation of a vessel is referred to in optional Clause 12 of the "Shipman" Standard Ship Management Agreement which, *inter alia*, provides that the operation of a vessel will be provided for by the ship managers. Furthermore, optional clause 2.3(x) of the said agreement provides that the managers shall carry out, as agents for and on behalf of the owners, the operation of the vessel.

In spite of clause 2.3 of the Shipman form of contract and its reference to agents, it would appear that OPA could still attach liability to an operator even though the operator may be acting as agent provided that it is the agent's acts which constitute the operation of the vessel,[37] and the vessel manager might well be considered an operator.[38]

3.7 Salvors

In the CLC 1992, it is specifically mentioned in Article III.4 (d) that "any persons performing salvage operations with the consent of the owner or on the instructions of a competent public authority". Thus, the salvors are protected under CLC 1992 "unless the damage resulted from their personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result". (Article III.4) Moreover, the shipowner still enjoys the right of recourse action against the salvor.

The salvor can possibly be pursued in an action based on the tort of negligence, either by the salvee, or as was the case in the Amoco Cadiz, by a third party.[39] In Amoco Cadiz litigation, some victims of pollution (Cotes du Nord and Bretagne) claimed directly against the salvor (Bugsier). The claim was denied on the basis that there was no causative actionable negligence or causative willful misconduct on the part of the salvor.[40]

In the US, the threshold for liability of the salvor was said to be causative gross negligence and willful misconduct.[41] This rule is applicable where there is an unsuccessful attempt at salvage.[42] In other instances, the salvor is said to be liable for ordinary negligence.[43]

The virtual denial of a right of action in CLC 1992 against the salvor for oil pollution damage, though possibly commendable as an encouragement to salvors, is another case in the list of denials of full rights of action to the victims of oil pollution.

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[36] Federal Register, Vol.59, No.126, 1 July 1993, Rules and Regulations, 34210, p34229,§138.20. See also Federal Register, Vol.61, No.46, 7 March 1996, Rules and Regulations, p9264-9274.
[37] The same principle would apply vis-à-vis the master of the vessel.
[38] Gorton, L., Shipmanagement Agreements, JBL 1991 November, p562 at p571-572.
[39] [1984] 2 Lloyd's Report 304, p192-193.
[40] [1984] 2 Lloyd's Report 304, p336.
[41] The Amoco Cadiz, [1984] 2 Lloyd's Report 304, p336.
[42] See Schoenbaum, T., Admiralty and Maritime Law, Second edition, Practitioner Treatise Series, §16-4.
[43] Ibid.

4. Comparative negligence

Both CLC and OPA adopt comparative negligence of the claimant as a ground of justification, but the wordings of the two regimes are different. Under Article III.3 of CLC, if the pollution damage "resulted wholly or partially either from an act or omission done with intent to cause damage…or from the negligence" of the person who suffered from damage, the shipowner "may be exonerated wholly or partially from his liability to such person". OPA provides in §2703 (b) that a responsible party is not liable "to the extent that the incident is caused by the gross negligence or willful misconduct of the claimant".

5. Defences to liability

The defenses to liability are important since they were viewed as a way of shifting risks.[44] Art. III. 2 of CLC 1992 and section 2703 (a) of OPA contain provisions on the defences to liability.[45] Despite the difference in wording, both CLC and OPA exempt the responsible party from liability if the incident is caused by an act of war or act of God,[46] or solely by the act or omission of third party. However, the OPA seems to impose more restrictions.

First, if the responsible party wishes to be exempt from liability on the grounds of act of war or act of God under OPA, he has to establish that the act of war or act of God is the "sole" cause of the incident. Such a requirement is nonexistent in the CLC. Hence, one may presume that when the act of war or act of God was the dominant or proximate cause of oil pollution and the negligence of the crew or other factors being contributing causes to the pollution, the shipowner may still be exonerated under the CLC, but not under OPA.[47]

Second, when the act or omission of third party is the sole cause of the pollution damage, if the shipowner wants to benefit from an exemption under the OPA, he has to prove he "exercised due care" and "took precautions". While under the CLC, there is no such requirement imposed on the shipowner. However, under the CLC, such an act or omission of the third party must be committed "with intent to cause damage". Hence, even when the third party's act is the sole cause of pollution damage, he can still escape liability by proving it is not an intentional act of

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[44] Gauci, G., 1997, p68.

[45] Article III.2 of the CLC 1992 provides that no liability is imposed on the shipowner if the damage:
"(a) resulted from an act of war, hostilities, civil war, insurrection or a natural phenomenon of an exceptional, inevitable and irresistible character, or
(b) was wholly caused by an act or omission done with intent to cause damage by a third party, or
(c) was wholly caused by the negligence or other wrongful act of any Government or other authority…"
OPA provides in §2703 (a) that no liability shall be imposed on the liable party if the discharge or substantial threat of a discharge and the resulting damages or removal costs were caused "solely" by:
(1) an act of God;
(2) an act of war;
(3) an act or omission of a third party, other than an employee or agent of the responsible party or a third party whose act or omission occurs in connection with any contractual relationship with the responsible party, if the responsible party establishes that he exercised due care and took precautions;
(4) any combination thereof.

[46] The CLC wording is that "a natural phenomenon of an exceptional, inevitable and irresistible character", Article III.2 of CLC 1992; the OPA simply mentions "act of God". One may argue that the CLC definition is narrower than the act of God in the OPA. Further discussion on this issue, see De la Rue, C. and Anderson, C.,1998, p88, fn.78.

[47] De la Rue, C. and Anderson, C.,1998, p88, fn.75.

his. In this respect, OPA seems more severe and provides more protection to the victim.[48]

A third difference is that under the CLC, the negligence or other wrongful act of any government in maintaining lights or other navigational aids can exempt the shipowner from assuming liability. This is not the case under OPA, and thus the responsible party shall still be held liable even when there is fault with the government.

Thus it seems OPA imposes more stringent rules than the CLC. OPA is more severe with the liability of the responsible party and provides better protection to the victims. Some scholars thus view the liability under OPA as quasi-absolute.[49]

6. Tanker ownership

In practice, as far as the tanker ownership is concerned, a distinction can be made between an independent tanker owner and an oil company as end user who also owns the tanker. Statistics have shown that the number of independent owners is growing so fast that it counts more than 70% of the tanker fleet ownership in 2000, compared with merely 10% of the market share in 1990. Moreover, most of the major tanker accidents since the 90s happened with tankers that belong to independent owners. For instance, the incidents with the Haven in 1991, Aegean Sea in 1992, Braer in 1993, Erika in 1999 and the Prestige in 2002, all these tankers belong to independent owners. The cases before the 90s are interestingly often caused by tankers belonging to oil companies. In this respect, the Torrey Canyon in 1967, Amoco Cadiz in 1978, Exxon Valdez in 1989, all belong to oil companies.

The growth of independent tanker owners shows that in order to avoid potential liability, oil companies detach itself from the operation of tanker fleets.

III. Limitation of liability

1. Amount of limitation

The amount of liability limits of the shipowner under different versions of CLC can be summarized as the table below.

Table: limitation of liability of the shipowner under the international regime[50]

	CLC 1969 (SDR)	CLC 1992 (SDR)	2000 Protocol (SDR)
Ships $\leq$ 5000 tons	133 per ton	3 million	4.51 million

[48] Wu, C., p235-237.
[49] Wu, C., p238-239.
[50] SDR stands for special drawing rights as defined by the International Monetary Fund.

Ships > 5000 tons	133 per ton	3 million + 420/additional ton	4.51 million + 631/additional ton
Overall limit	14 million	59.7 million	89.77 million

Two issues are worth mentioning here. First, the CLC 1969 did not make a difference between small ships (ships of 5000 tons or less) and big ships (ships of more than 5000 tons), but it was argued that small ships might cause large damage as well and hence it was equitable to set up a minimum limit for small ships. That is why the CLC 1992 has included a minimum amount for small ships of 5000 tons or less. Take a ship of 5000 tons for example, its limitation would be 0.665 million SDR under the CLC 1969, but has reached 3 million under the CLC 1992. Second, the unit of account in the CLC 1969 was gold French francs, which was replaced with the SDR in a 1976 Protocol. There are literatures criticizing the use of gold francs as it does not solve the problem related to fluctuation.[51] In order to facilitate the comparison, the FFr was converted to SDR.

OPA provides in § 2704 (a) that the limits of liability for a tanker shall be the greater of:
(1) $1200 per gross ton;
(2) $10 million for tank vessels of more than 3000 gross tons, or $2 million for tank vessels of 3000 gross tons or less.

Apparently, the limitation amounts under OPA are much higher than those under CLC. In addition, the CLC provides for an overall upper limit of liability, thus the liability under CLC is capped. On the other hand, OPA imposes a minimum limit. Thus, a second difference between these two regimes lies that CLC provide for maximum limits while OPA provides for minimum limits. In addition, although providing for a limited liability, OPA does not pre-empt state law on oil pollution liability. Hence, very likely, the responsible party may still be confronted with unlimited liability under OPA, as discussed in Chapter 6.

2. Loss of the limitation right

2.1 CLC provision

Article V. 2 of CLC 1969 provided that the shipowner would lose his right to limit if "the incident occurred as a result of the actual fault or privity of the owner". One may recall this was strongly criticized by the representatives from the P & I Clubs at the 1984 conference amending the CLC 1969. According to them, the determination on fault or privity is often the cause for delay in the compensation process.[52] It was also argued by some scholars that different interpretations given by different national courts as to what constitutes "fault or privity" may largely vary and thus lead to disparities in compensation for oil pollution damage in contracting states.[53] Moreover, the courts could find almost any little slip on the part of the management of the shipping company enough to uncover any such irregularity, however long before the accident

[51] JMLC.
[52] LEG/CONF.6/47, OR 1984, Vol.2, p55. According to the Clubs, the criterion of "fault or privicy" which determines whether the shipowner is entitled to limit his liability was one of the most glaring defects of the CLC.
[53] Wu, C., 1996, p174.

it may have been and however tenuously connected with the cause of the accident.[54]

Under the CLC 1992, the shipowner will be deprived of his right of limitation if "the pollution damage resulted from his personal act or omission, committed with the intent to cause such damage, or recklessly and with knowledge that such damage would probably result". It should be noted that first of all, in the CLC 1992 provision, the act or omission must be "personal" to the shipowner. This constitutes one major contrast with the CLC 1969. The "actual fault or privity" in the CLC 1969 was interpreted in a number of cases to mean that the actual fault or privity on the part of the *alter ego* of the company or corporation would be sufficient to prevent a shipowner from limiting his liability.[55] This meant that the limit could be broken even if the actual fault was not committed by the shipowner but by his *alter ego*. In contrast, the "personal act or omission" in the CLC 1992 rules out the possibility of applying the *alter ego* formula.[56] Moreover, negligence or even gross negligence of the shipowner does not meet the criteria of CLC 1992.

Second, the provision in the CLC 1992 implied that the burden of proof was laid on claimant, whereas under the CLC 1969 the burden of proof lies on the shipowner. Thus, it was observed that the difference in *onus probandi* in these two versions of CLC shows the difference in policy focus. The burden of proof in the CLC 1969 lies on the shipowner who seeks the protection of limitation of liability, and under the CLC 1992 relating to facts which would prevent a shipowner from benefiting limitation of liability lies on the plaintiff claimant, i.e. the person trying to prevent the shipowner from limiting liability.[57]

Some research has come to the conclusion that the 1992 provision on the test barring the right of limitation is stricter and much harder to circumvent than the 1969 provision.[58] Moreover, the test in the CLC 1992 was very close to the insurance law concept of "willful misconduct" under insurance law. Consequently, when the owner loses his right of limitation, he also loses his liability insurance cover. The implication for the practice might be that the claimants would be discouraged from challenging the shipowner's right of limitation of liability.[59]

Therefore, it was observed that the CLC 1992 actually makes it more difficult for the victim to break the shipowner's right to limit liability, and the CLC 1992 provides a better cover for shipowners compared with the 1969 regime.[60] The liability regime in this respect is being rendered more favorable to the shipowner. Indeed, the Report of Lord Donaldson's "Inquiry into the Prevention of Pollution from Merchant Shipping" specifically indicates that there may well come a time when the threshold relating to the breaking of the right of limitation in the context of CLC 1992 is proved to be an "unreasonable protection for reckless shipowners".[61]

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[54] Abecassis, D., 1983, p52.
[55] Gauci, G., 1997, p167, fn.39, the Lady Gwendolen [1965] 1 Lloyd's Report 335.
[56] Gauci, G., 1997, p168-169.
[57] Gauci, G., 1997, p166. See also, Griggs, P. and R. Williams, Limitation of Liability for Maritime Claims, 2nd edition, p40.
[58] Wu, C., 1996, p181.
[59] Wu, C., 1996, p181.
[60] Vanheule, B., 2003, p552.
[61] 1994. Recommendation number 82, which states that: "The UK Government should take action with other States signatory to the Conventions to implement the necessary revisions should it become clear that the revised

2.2 OPA provision

OPA provides in §2704 (c) (1) that the rights of limitation of liability will be deprived "if the incident was proximately caused by:
(A) gross negligence or willful misconduct of, or
(B) the violation of an applicable Federal safety, construction or operating regulation by, the responsible party, an agent or employee of the responsible party, or a person acting pursuant to a contractual relationship with the responsible party".

Given the high standard of diligence expected by the US courts with regard to willful misconduct, and the range of persons who are required to comply with Federal regulations, it is pointed out that the risk of unlimited liability for the responsible parties under OPA is a very real one.

In §2704 (c) (2), it is further provided that the responsible party will not be entitled to limit his liability if he fails or refuses to report the incident, to provide reasonable cooperation and assistance requested by a responsible official, or to comply with certain FWPCA orders without sufficient causes.

Loss of the right to limit was an issue addressed in the Amoco Cadiz litigation. It seems from that case that the American judiciary is more likely to deprive a shipowner of the right of limitation than for instance the English judges whose state ratifies the international regime. In one case it was stated:
Privity or knowledge is not tantamount to actual knowledge or direct causation. All that is needed to deny limitation is that the shipowner, 'by prior action or inaction set[s] into motion a chain of circumstances which may be a contributing cause even though not the immediate or proximate cause of a casualty…' Tug Ocean Prince, Inc. v. United States, … The recent judicial trend has been to enlarge the scope of activities within 'the privity or knowledge' of the shipowner, including imputing to corporations knowledge or privity of lower-level employees…[62]

In the Amoco Cadiz case,[63] it was held that the nominal owner of the oil tanker, i.e. "Transport", had "failed to meet its burden of proving that it was free from privity and knowledge with respect to the negligence which proximately caused the grounding of the vessel". The nominal owner had failed in the exercise of the non-delegable duty to ensure that the vessel was seaworthy. Hence the corporation was held to be unlimitedly liable to plaintiff claimants. In the same case, another subsidiary company, AIOC (Amoco International Oil Co.), was also held unlimitedly liable as it "failed to make Amoco Cadiz seaworthy prior to the last voyage and, for that reason among others, cannot limit its liability".[64] The parent company, Standard and AIOC,

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test is providing unreasonable protection for reckless shipowner."
[62] 1992 AMC 913, p940.
[63] [1984] 2 Lloyd's Report 304, United States District Court Northern District of Illinois, Eastern Division, 18 April 1984, per Judge Frank McGarr.
[64] Ibid, p338. No limitation of liability was granted. Besides, Standard, AIOC and Transport were allocated with joint and several liability. Confirmed on appeal (1992 AMC 913, United States Court of Appeal for the Seventh Circuit, 24 January 1992)

not being owners, did not have a right to limit liability. The right to limit liability of Standard and AIOC was also denied in the appellate court.[65]

3. Evaluation

The limit of liability in OPA is significantly higher than the CLC 1992 and its 2000 Protocol, and the loss of the right to limit is distinctly different to the extent that the conditions under which the limitation of liability can be broken in OPA are more easily reached. OPA marks a decisive move away from the limit of liability provided for in the CLC regime. There are indications that the limitation of liability is fading out in American law, while its counterpart the CLC strengthens the position of the shipowner to enjoy the privilege of not losing the right to limit his liability.

The international regime in view of the historical development has strengthened the shipowner's right to limit his liability and there is no additional condition that the shipowner needs to comply with in order to enjoy such right. The limitation of liability under the CLC 1992 is said to be almost unbreakable given the difficulty for the claimant in proving the personal act or omission of the shipowner. In contrast, OPA imposes stringent restrictions as conditions for shipowner to benefit from the right of limitation. Failure of compliance with mandatory safety standards would already lead to loss of such right. The right of limit can be more easily penetrated under OPA.

The provisions of the CLC 1992 seem to base on the presumption that the shipowner shall be able to limit liability,[66] while the OPA uses the financial limit as a reward to those who have complied with the Federal safety, construction and operation regulations. The CLC 1992 lays the burden of proof on a plaintiff who seeks unlimited liability. The claimant needs to show either intent or recklessness on the part of the owner, on the balance of probability. It is difficult to imagine a situation where a tanker owner would cause intentional harm. The test of recklessness is also qualified by the requirement for the claimant to show that the owner acted in the knowledge that the damage or cost would probably result. Moreover, the "personal" act or omission of the owner as required under the CLC 1992 might not be easy to establish in practice. For instance, in the case of a corporate owner to assess where in the company hierarchy the intent or recklessness must exist before liability for damage will become unlimited. In contrast, OPA provides that when the owner complies with regulations, he might be entitled the reward of financial limit. Given the extremely serious consequences of not being able to limit liability, the potential imposition of unlimited liability also serves as a blunt but pragmatic measure to force the oil and shipping industries to comply with federal regulations. It is instructive to note that the OPA effectively uses the threat of unlimited liability to put direct pressure on the oil and shipping industries to comply with regulations which have as their object the reduction of the risk of oil spills, but the framers of the CLC were unable to do so.[67]

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[65] 1992 AMC 913, p937-941.
[66] Popp, A., Legal Aspects of International Oil Spills in the Canada/U.S., Canadian – US Law Journal, Vol.18, 1992, p320.
[67] Little, G. and Hamilton, J., 1997, p399.

4. Debate on limitation of liability in maritime law

4.1 Legal justifications

As shown above, limitation of liability is not a mechanism peculiar to the marine oil pollution compensation regime, but is a common feature of maritime law. Different reasons have been employed to justify the introduction and continuing existence of such a mechanism.

First, a limitation of liability for the shipowner was originally needed to encourage the development of shipping activities which were considered risky at the time. Second, the promotion of the national merchant fleet under the competitive pressure led to the decision of various countries to introduce a financial limit on the liability of shipowner into their legislations.[68]

However, with the change of the commercial structure and the modern technology, these reasons advanced in the 17th century were not valid any more. A more recent justification for the limitation of liability concerned a fair risk distribution.[69] There are risks inevitably attached to a maritime adventure (even with modern technology) and it was considered equitable to make all those benefit from the activity bear the risks in order to achieve an equitable risk distribution among them.

Another justification developed in modern theory was the protection of the carrier, and of those who benefit from the shipping activities.[70] It was argued that if the carrier had to bear all the risks and related costs without a limitation, he may be either driven out of business (whereby the choices of vessels available to cargo owners are reduced), or may be forced to pay a high premium for insuring his potential liability (which will result in the increase of the freight he charged to the cargo owner).

A third justification for limitation of liability in the context of modern trade is that a statutory limitation of liability is necessary to meet the needs of liability insurance.[71] It was often argued that the capacity of the insurance market was not infinite. Unlimited liability was considered uninsurable, or at least the insurance costs would be unreasonably high. Moreover, the insurance costs already constituted a large part of the operational costs. To expose the shipowner to unlimited liability would lead to a high premium which would constitute a too heavy burden for the shipping industry, so it was held.[72]

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[68] See for instance, Lord Mustill, Ships are different – or are they?, Lloyd's Maritime and Commercial Law Quarterly, 1993, p497; Wetterstein, P., The Principles of Limitation and Sharing of Liability, in: Legislative Approaches in Maritime Law, Proceedings from the European Colloquium on Maritime Law, Oslo, 7-8 December 2000, p95.
[69] Seward, R., 1986, p185.
[70] Lord Mustill, 1993, p493.
[71] The insurance factor was emphasized during the drafting for the CLC 1969, LLMC 1976 and HNS Convention 1996.
[72] Seward, R., 1986, p161-186.

4.2 Critiques

The limitation of liability in marine oil pollution regime in particular and in maritime law in general is also confronted with some critiques.

A first critique is that financial limits on the liability of the injurer (very often the shipowner) in fact constitute a subsidy to the shipping industry at the cost of other interests (more particularly, the injured party). In the early days of shipping such limits were needed as a stimulant for investment in shipping due to its highly risky nature, but this historical justification was no longer valid, and the widespread use of insurance particularly third party liability insurance could considerably reduce such risks.[73] Financial caps allow the industry to pay only part of the damage it has caused. Ultimately it will be the society at large that bears the cost of damage caused by shipping.[74] However, no country is willing to take away the subsidy to their industry because they are afraid they would expose their shipping industry to the competitive disadvantages.[75] This might explain the long survival of financial caps albeit the criticism.

A second critique concerns the relationship between the limitation of liability and the liability insurance. It is often argued that the statutory limitation of liability is necessary to obtain insurance. One could equally presume a situation where the limitation of liability and the insurance was divorced, being the liability of the shipowner remains unlimited, but the insurance covers only to certain amount.[76] Wetterstein believed that the insurance industry's capacity should not constitute an obstacle to unlimited liability because the special structure of marine liability insurance (through P& I Clubs) and the reinsurance (through pooling agreement between the Clubs), which facilitates a very substantial (and growing) capacity.[77] Indeed, the most recent change took place in 2003 where the small tankers insured by the P&I Clubs agreed voluntarily to increase their financial caps has shown the potential capacity of the insurance market.

Another often quoted argument for maintaining the financial limits is that the introduction of unlimited liability would increase the operating costs for the shipowners.[78] However, according to some empirical study, this would only mean a marginal increase in the overall operating costs.[79] On the other hand, there is a relative advantage of the unlimited liability (while liability insurance is capped to a certain amount), being incentives for prevention. In such a situation, there will be liability exceeding the insurance ceiling, which will then be born by the activity causing such damage, and it will in turn provide incentive for prevention.[80]

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[73] Gauci, G., Limitation of Liability in Maritime Law: An Anachronism?, Marine Policy, 1995, Vol.19, No.1, p66.
[74] Wetterstein, P., 2000, p99.
[75] Rein, A., International Variations on Concepts of Limitation of Liability, Tulane Law Review, 1979, p1259; also Allen, C. Limitation of Liability, Journal of Maritime Law and Commerce, 2000, p263.
[76] See e.g. Gauci, G., 1995, p66; Wetterstein, P., 2000, p95-100.
[77] See Wetterstein, P., 2000, p98-99.
[78] See for instance, Eyer, W., Shipowners' Limitation of Liability – New Directions for an Old Doctrine, Stanford Law Review, 1964, p389.
[79] For detailed discussion, see Wetterestein, P., Damage from the International Disasters in the Light of Tort and Insurance Law, 1990, p 8.
[80] Wetterstein, P., 2000, p98-99.

4.3 Further exploration

It should be noted that the international conventions concerning the limitation of liability existing long before the conclusion of the conventions on civil liability for marine oil pollution damage. Hence, the rationale for limiting liability in the other areas of maritime law and the limitation in the marine oil pollution compensation regime may be different. The justifications for the limitation may be valid in other areas of maritime law, but not necessarily sustain with respect to the particular regime for oil pollution compensation. Therefore, it needs to be further explored in Chapter 9 with the tool of economic analysis.

IV. Compensable damages

1. Pollution damage

1.1 CLC definition

Both versions of CLC define "pollution damage" in Article I.6 to be "loss or damage caused outside the ship by contamination",[81] and "includes the costs of preventive measures and further loss or damage caused by preventive measures".[82] Therefore, the damage compensated under the international regime must be caused by contamination, and hence other forms of damage sustained due to the incident, such as damage caused by fire or explosion would not be covered by the international conventions.[83] It is very likely that complex issues as to causation would arise where contamination by oil is followed by contamination by fire.[84]

The pollution damage in theory covers damage to property (e.g. boats, fishing gear, beaches and embankments), loss of life and personal injury. However, in a case of oil pollution, the major damage concerns property damage, and loss of life or personal injury is relatively rare in the context of oil pollution.[85]

The CLC 1992 adds in the definition of "pollution damage" in Article I.6 the "compensation for impairment of the environment", which is "limited to costs of reasonable measures of reinstatement actually undertaken or to be undertaken".

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[81] There is a slight difference between these two versions of definition in the sense the CLC 1969 contains a restriction the ship must be "carrying oil", while such a restriction is non-existent in the CLC 1992.

[82] "Preventive measures" are further defined in Article I.7 in both versions of CLC to be "any reasonable measures taken by any person after an incident has occurred to prevent or minimize pollution damage". Further discussion on preventive measures, see below.

[83] Abecassis, D., 1978, p208. According to Abecassis contamination by oil following a fire would, however, be covered.

[84] In the case of Aegean Sea incident, the Executive Committee of the Fund recognized the difficulty in that case of distinguishing between damage caused by fire and damage by contamination from the oily smoke resulting from the fire. The difficulty was settled on the basis that the damage in that case was one by contamination. See FUND/EXC.38.9, 11 February, section 3.3.3.

[85] According to Wetterstein, the wording "loss or damage caused… by contamination" of the "pollution damage" definition in the CLC delimits the significance of personal injury and death claims. The Fund has had only limited experience regarding claims for personal injury and death. The Fund paid in one case the costs of necessary medical treatment of personnel who had been involved in the clean-up operations. See Wetterstein, P., 1994, p234. See also Jacobsson, M. and Trotz, N., The Definition of Pollution Damage in the 1984 Protocols to the 1969 Civil Liability Convention and the Fund Convention 1971, Journal of Maritime Law and Commerce, Vol.17, 1986, p471.

One major difference between the definitions of "pollution damage" in the two versions of CLC is that the CLC 1992 specifically mentions that the "impairment of the environment" shall be compensated insofar as the costs are incurred for "reasonable measures of reinstatement actually taken or to be taken". However, the criteria for the reinstatement to be "reasonable" are not explained in the convention and hence this may lead to some difficulties in practice particularly when dealing with major spills which produce "irreparable environmental damage".[86]

Moreover, the way the CLC 1992 prescribes the definition seems to separate the pure economic loss from other forms of loss: "compensation for impairment of the environment other than loss of profit from such impairment shall be limited to costs or reasonable measures of reinstatement actually undertaken or to be undertaken."[87] This is widely accepted to be the recognition of the compensation for loss of profit resulting from impairment of environment, and it is also considered to be effectively recognition of the 1971 Fund's practice to narrow claims for pure economic loss to claims for loss of profits only.[88] However, there are difficulties for courts in determining liability for pure economic loss, including deciding when the loss suffered has become too remote from the damage, and the extent of damage caused, may raise difficult question of degree for a court. This will be discussed further below in comparison with the American system established through OPA.

Another major difference lies in the compensation for the so-called pure threat removal. It may sometimes happen that the preventive measures are so successful that there is no actual spill of oil from the tanker involved in an incident. Still costs to prevent spill may have been incurred. These are known as pure threat removal costs. Given the definition of an "incident" in the CLC 1969,[89] only occurrence that has caused pollution damage is covered. Where there is no oil pollution damage materialized, the pure threat removal costs are not compensable under the CLC 1969. The position has changed in the 1992 version when the occurrence that "creates a grave and imminent threat of causing such damage" was added in Article I.8. As a result, these prevention costs are now recoverable under the CLC, but only on the condition that they create "a grave and imminent threat of causing such damage". Under the CLC 1992, in addition to oil spill incidents that have actually happened, it also covers the situation where there is "a grave and imminent threat of causing such damage".[90]

Thus the pure threat removal costs are not compensated under CLC 1969, but compensated under the CLC 1992 as the definition of "incident" is broadened. This is further confirmed in the Claims Manual of the Fund: "Compensation is also paid for the costs of mobilizing clean-up equipment and salvage resource for the purpose of preventive measures even if no pollution occurs, provided that the incident created a grave and imminent threat of causing pollution

[86] Wilkinson, D., 1993, p84-85.
[87] Article I.6 of CLC 1992.
[88] Little, G. and Hamilton, J., 1997, p399. See also Brans, E., The Braer and the Admissibility of Claims for Pollution Damage under the 1992 Protocols to the Civil Liability Convention and the Fund Convention, Environmental Liability, 1995, Vol. 65; and IOPC Fund Annual Report, 1995, p60.
[89] An incident under CLC 1969 is defined to be "an occurrence, or series of occurrences having the same origin, which causes pollution damage".
[90] Article I (8) of the CLC 1992.

damage and on the condition that the measures were in proportion to the threat posed."[91]

1.2 The OPA definition

The recoverable damage is divided into two main categories under OPA, which includes removal costs and the damages. [§2702 (b)]

First, the "removal costs" are defined to be the costs of "containment and removal of oil or a hazardous substance from water and shorelines or the taking of other actions necessary to minimize or mitigate damage to the public health or welfare" incurred after a discharge of oil, or where there is a substantial threat of a discharge of oil, "the costs to prevent, minimize, or mitigate oil pollution from such an incident". [§2701 (30) and (31)] §2702 (b) allows the removal costs incurred by the US, a State or an Indian tribe under related federal and state law, incurred by any person consistent with the National Contingency Plan to be compensable under OPA.

Second, recoverable damages include:
(A) natural resource damages: injury to, destruction of, loss of or loss of use of natural resources, including reasonable assessment costs;
(B) damages to (real or personal) property, including economic loss;
(C) damages for loss of subsistence use of natural resources;
(D) damages for revenues: net loss of taxes, royalties, rents, fees or net profit shares, due to damage to property or natural resources;
(E) damages for loss of profits or impairment of earning capacity due to damage to property or natural resources, and
(F) damages for public services: the net costs of increased or additional public services during or after removal activities [§2702 (b) (2)]

The definition of recoverable damage is also criticized for being overlapping.

1.3 Comparison

Pollution damage is defined differently in the international regime and the US regime. The definition under the CLC links pollution damage with contamination, whereas the definition under OPA does not recognize such a link and it simply refers to specified damages and costs which "result from the incident".

Under the international regime, the quantification of damage recoverable under the CLC is not to be made on the basis of an abstract quantification of damage in accordance with theoretical models.[92] The compensation for environmental damage is restricted to the "reasonable measures of reinstatement actually taken or to be taken". In contrast, abstract quantification of non-market environmental damage is allowed in accordance with prescribed assessment standards under

[91] Claims Manual, 1992 Fund, April 2005 edition, p22.
[92] IOPC Fund Resolution No.3-pollution damage, FUND/A/ES1/13, London, 1980.

OPA. Therefore, the position on environmental damage quantification within the CLC/ Fund Convention regime is different than OPA.[93]

Moreover, in the American law, there is a concept of trustee, which means a State or an Indian tribe may act as a trustee to claim compensation for the natural resources, and this does not exist in the international regime.

Second, OPA enables those individual claimants who have suffered pure economic loss as a result of natural resource damage (and who are able to demonstrate the necessary causal links) to establish liability and claim compensation. Compared with CLC, OPA is more widely drawn. Claimants are able to establish liability not merely for any resulting loss of profits, but also for impairment of earning capacity arising out of damage to the environment. The CLC does not enable claimants to pursue a remedy for impairment of earning capacity, as well as loss of profits. E.g, employees of companies which have sustained a downturn in orders through natural resource damage, and whose livelihood has thereby suffered, prima facie have the option of raising a claim for impairment of earning capacity.[94] Although the CLC now grants hotel owners and fishermen the claims for loss of profits caused, OPA has the potential to enable a much wider range of claimants to recover damages for a downturn in tourism and business generally, and even for the loss of the area's image.[95]

OPA makes clear that state governments are entitled to provide for additional liability or requirements, and civil or criminal fines or penalties. A number of states have done so and their regimes are often more stringent than that of the OPA. Thus punitive damages can also be awarded. Taken together, these factors ensure that the responsible party can be in no doubt as to the exacting standard of compliance which is expected. Accordingly, it may be the case that, should there be insufficient funds in the OSLTF to compensate claimants, there may be alternative means of obtaining compensation.[96]

It seems from the general comparison of the definition on pollution damage under the two regimes, the recoverable damage under OPA is broader and more extensive, particularly with respect to natural resource damages. The implications of such diversities will be discussed below.

2. Preventive measures

2.1 Comparison between CLC and OPA definitions

Both the 1969 and CLC 1992 specifically mention in Article I.6 that pollution damage includes "the costs of preventive measures and further loss or damage caused by preventive measures". The "preventive measure" is further defined in Article I.7 as "any reasonable measures taken by any person after an incident has occurred to prevent or minimize pollution damage". But the CLC 1992 stressed that the preventive measures "wherever taken" (Article II. b) should be

[93] Mason, M., 2003, p4.
[94] Little, G. and Hamilton, J., 1997, p400.
[95] De la Rue, C., 1993, p145.
[96] Little, G. and Hamilton, J., 1997, p398.

compensated. This came from the concern that preventive measures taken at high sea would not otherwise be compensated under the CLC 1969.

Hence, the compensation for preventive measures under the international regime is subject to the criteria of being "reasonable". The requirement of reasonableness has been addressed by the Seventh Intersessional Working Group of the1971 Fund which concluded that this requirement should be assessed on the basis of objective criteria, taking into account the circumstances of the case, and the information and technical advice available at the time to those in charge of the operations. When deciding on compensation, the judgment on reasonableness is normally guided by a technical appraisal of the oil spill response measures, and the bodies providing compensation such as the Fund do not take for granted that the measures are reasonable because they are taken or directed by a government or other public body.[97]

The Working Group further stated that the "assessment of technical reasonableness should be made on the basis of the facts available at the time of the decision to take the measures, in the light of the technical advice given or offered at that time", that the "person in charge should reassess his decision in the light of developments and further technical advice", and that "the costs incurred should be reasonable".[98] In relation to fixed costs, i.e. costs like salaries, which would have been incurred by a public authority (as distinguished from additional costs), it was decided that the policy should remain that a proportion of the fixed costs are admissible, "provided that such costs corresponded closely to the clean-up period in question and did not include remote overhead charges".[99]

In OPA, although there is a concept known as the "removal costs", it refers to the "the costs to prevent, minimize, or mitigate oil pollution" from an incident. It has been generally accepted that the "preventive measures" under the CLC cover not only steps to prevent oil from escaping from a stricken tanker involved in an accident, but also clean-up operations undertaken after oil has been spilt in order to minimize the damage caused by pollution. In this respect, the "preventive measures" under the CLC and "removal costs" under OPA contain *prima facie* the same contents except for one major difference, being the requirement of being "reasonable" under the CLC is missing in the context of OPA.

2.2 Salvage operations[100]

A salvage operation is an event which can precede, accompany or follow an oil spill, and hence, is likely to constitute a complicating factor in an analysis of compensation claims.

One difficulty relates to the question whether salvage operations could be compensated within the definition of "preventive measures" in the CLC. A difficulty arises when the salvage

[97] Report of the Seventh Intersessional Working Group, document FUND/WRG.7/21; Claims Manual, IOPC Fund; see also De la Rue, C. and Anderson, C.,1998, p401.
[98] Report of the Seventh Intersessional Working Group, document FUND/WRG.7/21; Claims Manual, IOPC Fund; see also De la Rue, C. and Anderson, C.,1998, p401.
[99] FUND/WGR.7/21 Annex 1, §2.3. See also comments on this issue at FUND/A.17/35 §26.11.
[100] Gauci, G., 1997, p37-38, 183-197, De la Rue, C. and Anderson, C.,1998, p561-612.

operation is not undertaken for the exclusive purpose of avoiding environmental damage.

The issue was addressed by the Fund and the following point of view was suggested in the Patmos case: the Executive Committee took the position that operations could be considered as falling within the definition of preventive measures only if the primary purpose was to prevent pollution damage; if the operations primarily had another purpose, such as salvaging hull or cargo, the operations would not be covered by the definition.[101]

This interpretation would be of advantage to salvors in the salvor-salvee relationship since a shipowner would not be able to invoke the limitation of liability vis-à-vis the salvor, unless the operation would be a case of a preventive measure within the ambit of the above. However, neither the salvor nor the salvee would in such a case have a right of action against the Fund.

The IOPC Fund Claims Manual of 2005 provides that if the primary purpose of the salvage operation is to prevent pollution damage, then the costs incurred qualify in principle for compensation under the 1992 Conventions. "However, if salvage operations have another purpose, such as saving the ship and/or the cargo, the costs incurred are not accepted under the Conventions. If the operations are undertaken for the purpose of both preventing pollution and saving the ship and/or the cargo, but it is not possible to establish with any certainty the primary purpose, the costs are apportioned between pollution prevention and salvage. The assessment of claims for the costs of preventive measures associated with salvage is not made on the basis of the criteria applied for determining salvage awards, but the compensation is limited to costs, including a reasonable element of profit."[102]

The salvage reward is normally fixed according to the provisions of the International Convention on Salvage 1989, which also allows "special compensation" for expenses incurred by the salvor even when the salvage operation is not successful in saving vessel or property but "has prevented or minimized damage to the environment." [103]

Moreover, in both versions of CLC Article V.8 provides that "expenses reasonably incurred or sacrifices reasonably made by the owner voluntarily to prevent or minimize pollution damage" shall be recoverable and they "shall rank equally with other claims" against the limitation fund set up by the shipowner. However, this is only restricted to the expenses incurred by the shipowner on a voluntary basis. Thus, if he is bound to take relevant measures under applicable

[101] Annual Report 1988, IOPC Fund, p60.
[102] Claims Manual, 1992 Fund, April 2005 edition, p22-23.
[103] Entered into force on 1 July 1996. Article 13 provides:
"1. The reward shall be fixed with a view to encouraging salvage operations, taking into account the following criteria without regards to the order in which they are presented below:
(a) the salved value of the vessel and other property;
(b) the skill and efforts of the salvors in preventing or minimizing damage to the environment;
(c) the measure of success obtained by the salvor;
(d) the nature and degree of the danger;
(e) the skill and efforts of the salvors in salving the vessel, other property and life;
(f) the time used and expenses and losses incurred by the salvors;
(g) the risk of liability and other risks run by the salvors or their equipment;
(h) the promptness of the services rendered;
(i) the availability and use of vessels or other equipment intended for salvage operations;
(j) the state of readiness and efficiency of the salvor's equipment and the value thereof."

national law, or if he is ordered to do so by a duly empowered authority, the costs incurred will not be covered. Therefore, the CLC provides a financial incentive for the shipowner to take appropriate measures on his own initiative and if possible to avoid any legal compulsion.[104]

3. Pure economic loss

3.1 International regime

In the case of a pollution incident which may likely affect a coastline, fishermen, hoteliers, restaurateurs and shopkeepers who normally obtain their income from tourists at seaside resorts will often suffer losses of profit although their properties are not polluted. This sort of losses, being financial losses without attendant physical injury or damage to the property is a good example of pure economic losses often sustained in an oil pollution incident.[105]

Concerning whether the pure economic loss is recoverable under the international regime, the 1969 definition was not clear on to what extent the economic losses are compensated. The practice of the 1971 Fund was that the victims such as fishermen and hoteliers by the seaside will be able to recover, provided that they can prove that they have suffered loss of profit as a result of such impairment. Hence, in practice the 1971 Fund compensates pure economic loss only in respect of loss of profits.[106]

As mentioned before, since most cases are settled out of court, there have been indeed few cases that could be used as precedents. In this respect, the practice of the Fund proves to be useful in providing guidance.[107]

Since its early stage of operation, the 1971 Fund has been confronted with claims for various sorts of economic losses. In the early cases dealt by the 1971 Fund, Tanio (France, 1980) is among the known cases where the claims for pure economic losses by fishermen and hoteliers were granted. The 1971 Fund confirmed such a practice in the 1988 Annual Report and also later in June 1993 by the Executive Committee.[108]

The change of the provision in the CLC 1992 which accepted compensation for loss of profit resulting from oil pollution incident is considered effectively a recognition of the practice of the 1971 Fund to narrow claims for pure economic loss to claims for loss of profits only.[109] E.g. employees of a fish processing plant who sought compensation for loss of working hours arising out of the Braer spill had their claims rejected by the Fund on the grounds that the losses were "a more indirect result of the contamination than losses suffered by companies or self-employed persons, since the losses of the individuals were the result of their employers being affected by

[104] De la Rue, C. and Anderson, C.,1998, p394.
[105] Silverstone, D., 1985, p109.
[106] Jacobsson, M. and Trotz, N., 1986, p478.
[107] Concerning the legal status of the Fund's documents, see De la Rue, C. and Anderson, C., 1998, p387-389. They believed the legal documents of the Fund shall have at least persuasive value.
[108] See FUND/EXC/35/10, p2-4.
[109] Little, G. and Hamilton, J., 1997, p399; see also Wetterstein, P., 1994, p236.

the consequences of the spill and therefore having to reduce their workforce".[110]

The IOPC Fund has decided in October 1993 to designate the seventh intersessional working group to examine the criteria for the admissibility of claims under the CLC and the Fund Convention.[111] The working group submitted its report in October 1994 which was accordingly adopted by the Fund Assembly.[112] The criteria adopted by the working group for economic loss were concluded as follows: in order for a claim to qualify for compensation, there has to be a reasonable degree of proximity between the contamination and the loss or damage sustained by the claimant. When considering the reasonable proximity, some elements need to be taken into account: "the geographic proximity between the claimant's activity and the contamination; the degree to which a claimant is economically dependent on an affected resource; the extent to which a claimant had alternative sources of supply; the extent to which a claimant's business formed an integral part of the economic activity within the area affected by the spill." Moreover, the extent to which a claimant could mitigate his loss should also be taken into account.[113] Since 1994, the Funds have considered claims by reference to these criteria.[114]

In the case of the "Sea Empress",[115] these criteria were applied. Addressing the claims from the fish processing company known as Tilbury against the Fund, the Court held that "there can be claims under the statute for loss suffered by fishermen… such claims arise from the very close relationship between the contaminated waters and the fishermen's activities and loss." However, the fish processing company "was not engaged in any local activity in the physical area of the contamination. Its interest was in landed whelks, not in the whelks in their natural habitat." The fishermen was not able to supply the contracted whelks to Tilbury since their physical activities were closely affected by the contamination. However, the fact that the appellant fish processing company incurred losses from not being able to process, pack and deliver whelks due to the loss of the fishermen was considered by the Court a form of secondary loss which shall not be compensated by the Fund.[116]

At present, the Fund limits claims for pollution damage to "quantifiable elements" of economic loss. These include loss of profit or income to persons who depend directly on earnings from coastal or sea-related activities. However, it is yet an open question how far the right of compensation extends in such cases and it leaves open the question what line of demarcation is to be drawn in order to avoid imposing unlimited or indeterminate liability for remoter claims. Wetterstein held the view that compensation should be restricted to those who suffer economic losses in the exercise of their commercial activity, because they are unable to enjoy some of their common public rights (with the exception of people who are dependent upon the ecosystem for their subsistence).[117]

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[110] Brans, E., 1995, Vol. 65; and IOPC Fund Annual Report, 1995, p60.
[111] 71 FUND/A.16/32, para.23.
[112] Documents FUND/EXC.35/10, FUND/WRG.7/21, FUND/A.17/23.
[113] Document FUND/WRG.7/21, para.7.2.21, p29-32.
[114] De la Rue, C. and Anderson, C., 1998, p466.
[115] Algrete Shipping Co. Inc. and Another v. The International Oil Pollution Compensation Fund, Court of Appeal, 2003, Lloyd's Law Reports, Vol.1, p327-340.
[116] Lloyd's Law Reports, 2003, p336.
[117] Wetterstein, P., 1994, p234.

3.2 US regime

OPA allows for recovery for lost profits or impairment of earning capacity in the absence of any proprietary interest, as provided in section 1002 (E). Moreover, the introductory phrase "notwithstanding any other provision or rule of law" seems to permit recovery of pure economic losses even by remote claimants.[118] However, there was no further clarification on the exact extent of the recovery permitted. The example of recoveries by fishermen for lost income already existed as an exception to the Robins rule prior to OPA. In addition, the statutory language was criticized to be imprecise and ambiguous.[119] De la Rue also pointed out that OPA was not clear on whether it abrogates altogether issues of foreseeability and proximate cause. The US courts practice so far did not produce consistent results in this respect.[120]

OPA enables those who own or lease property which has been damaged to claim for economic losses.[121] Significantly, OPA also permitted claims for pure economic losses. Assuming the requisite causal links can be established, it is not necessary for a claimant to have a direct ownership interest in damaged property before damages for economic losses will be awarded, and damages may be available to a claimant who has lost wages or profit as a result of damage to natural resources. The ability to raise a claim for impairment of earning capacity arising out of environmental damage is particularly significant, as it widens the ambit of actionable pure economic loss to a potentially wider range of claimants' employees who lose wages and who prima facie have a remedy.[122]

3.3 Comparative analysis

Compensation for pure economic loss seems to be more restricted under the international regime than under the US OPA in two respects. The type of pure economic losses recoverable under the CLC is only limited to the loss of profits suffered by the industry relying on the polluted marine resort, while under OPA it is broader which includes impairment of earning capacity.

4. Environmental damage /Natural resource damage

4.1 CLC provision

The term "environmental damage *per se*" is used to denote physical damage to the environment, in contrast with the concept of economic loss, or damage to property.[123] The environmental damage *per se* is thus mainly the damage to natural resources, including e.g. damage to wildlife, to food chains in the environment.[124]

Concerning compensation for environmental damage, the CLC 1969 definition does not give any

[118] This was the opinions expressed by some commentators at the time. See for instance, Kiern, L., 1994, p487.
[119] Wagner, T., 1994, p283-297. Wagner, T. held the view that the two economic loss provisions under (B) and (E) are contradictory to each other, as (B) required damage to property while (E) not.
[120] De la Rue, C. and Anderson, C., 1998, p458-460.
[121] §2702 (b) (2) (B).
[122] Little, G. and Hamilton, J., 1997, p397.
[123] Wilkinson, D., 1993, p83.
[124] See Wetterstein, P., 1994, p234; also Jacobsson, M. and Trotz, N., 1986, p481.

indication as to whether the damage to the environment *per se* is compensable. It is to be decided by the national courts. However, many countries still lack statutes or court decisions dealing with the question of compensating damage caused to natural resources. Moreover, the practice of the 1971 Fund was not to accept claims for non-economic environmental damage, and compensation is paid by the Fund only if a claimant (who has a legal right to claim under national law) has suffered quantifiable economic loss.[125]

The CLC 1992 definition provides that the environmental damage *per se* is compensable, but only so far as it is reasonable, and only where actually undertaken or to be undertaken. The 1992 definition is considered an improvement compared with the 1969 definition in so far as it explicitly confirms the compensability of environmental damage *per se*.[126]

However, the scope of environmental damage under the international regime is not so easy to demarcate. It seems that only certain measures taken to improve the natural process, to enhance the speed of natural recovery after an oil spill will be eligible. These reinstatement measures must be reasonable and aim to restore the damaged site to the same ecological state that would have existed had the oil spill not occurred. The Fund goes into great detail and indicates that the aim is "to re-establish a biological community in which the organisms characteristic of that community at the time of the incident are present and are functioning normally".[127]

Moreover, claims for compensation for environmental damage, calculated by theoretical models or in accordance with abstract models, under CLC and Fund Convention, are inadmissible. This remains the case even where an attempt is made to quantify such a claim by reference to the estimated costs of reinstatement measures: if there is no intention to carry out measures concerned, and they are relied upon simply as a mechanism for placing a figure on a non-pecuniary claim, the claim is irrecoverable.[128] This is in marked contrast to the position under OPA.

In 1980 the Fund Assembly adopted unanimously Resolution No.3 stating that the assessment of compensation is "not to be made on the basis of an abstract quantification of damage calculated in accordance with theoretical models".[129] This was triggered by the Antonio Gramsci spill in 1979, whereby the USSR government attempted to recover estimated costs for environmental damage beyond demonstrated economic loss. Although the USSR was not a party to the Fund Convention 1971 at the time, its claims against the shipowner under the CLC 1969 had consequences for the Fund by consuming a major part of the shipowner's limitation amount.[130] Claims for environmental compensation not related to quantifiable economic loss (claims for damage to the environment based upon "theoretical models") have consistently been rejected by

[125] See Wetterstein, P., 1994, p234; also Jacobsson, M. and Trotz, N., 1986, p481.
[126] Wilkinson, D., 1993, p84-85.
[127] IOPC Fund 1992, Claims Manual, November 2002, p29.
[128] De la Rue, C. and Anderson, C., 1998, p376-377.
[129] FUND/A/ES.1/13, International Oil Pollution Compensation Fund, Resolution No.3 – Pollution Damage, 1980, IOPC Fund. See also Abecassis, D., Oil Pollution – The Patmos, Lloyd's Maritime and Commercial Law Quarterly, 1987, p277. According to Abecassis, this resolution was endorsed by a court for the first time in the Patmos, by the Italian Court of First Instance at Messina.
[130] Mason, M., 2003, p4.

the Fund on the basis of Resolution No.3.[131]

E.g. environmental damage claims of 5000 million lire resulting from the Patmos spill in 1985 and 100,000 million lire from the Have spill in 1991 from the Italian government, and $3.2 million from Indonesia in the Evoikos spill in 1997, were all declared by the 1971 Fund inadmissible because of the abstract manner of their calculations. However, the Italian government still pursued its environmental claims through its national courts. Although the Italian Court of Appeal accepted a claim which included *inter alia* non-use environmental values assessed by expert testimony, the Fund appealed against the judgment and the claim was settled out of court. In the Settlement Agreement, the Fund made it clear that it neither accepted nor made payments for such environmental claims.[132] It is worth noting that the Italian adoption of the 1992 Protocols had to await resolution of the Patmos and Haven claims. At the 1992 IMO conference, Italy has expressed its reservation that only accepting environmental damage claims quantifiable in terms of concrete economic loss prevented the legitimate recognition of damage "in terms of fair remuneration according to prior understandings between the parties".[133]

As mentioned above, the Assembly of the IOPC Fund in 1993 has designated a working group to examine the criteria for the admissibility of claims under the CLC and the Fund Convention, including the criteria for the admissibility for claims for damage to the environment.

At present, the Fund limits claims for pollution damage to "quantifiable elements" of economic loss. These include loss of profit or income to persons who depend directly on earnings from coastal or sea-related activities. It is recognized that putting a value on the environment has caused difficulties in the past, and this is one of the reasons why the CLC 1992 sought to avoid the issue. The Antonion Gramsci and Patmos cases, where attempts were made to assess compensation using an abstract quantification of damage calculated by theoretical models, have cast long shadows.[134]

Claims for compensation for environmental damage, calculated by theoretical models or in accordance with abstract models, under CLC and Fund Convention, are inadmissible. This remains the case even where an attempt is made to quantify such a claim by reference to the estimated costs of reinstatement measures: if there is no intention to carry out measures concerned, and they are relied upon simply as a mechanism for placing a figure on a non-pecuniary claim, the claim is irrecoverable.[135]

4.2 Natural resource damage defined in OPA

OPA has a special provision concerning natural resource damages in §2706. It includes the costs of restoring, rehabilitating or acquiring the equivalent of damaged natural resources, the diminution in value of the resources pending restoration, and reasonable assessment costs.

[131] Mason, M., 2003, p4.
[132] FUND/WDR.7/4, Criteria for the admissibility of claims for compensation, IOPC Fund, 1994.
[133] LEG/CONF.9, p176; see also Mason, M., 2003, p4.
[134] Little, G. and Hamilton, J., 1997, p401; Wilkinson, D., Journal of Environmental Law, 1993, p79, 82-88.
[135] De la Rue, C. and Anderson, C.,1998, p376-377.

[§2706 (d) (1)] The US government, the states, Indian tribes or foreign governments shall act as public trustee of natural resources to claim and recover for such natural resource damage. [§2706 (a)] The trustees shall assume the function of assessing natural resource damage and developing and implementing a plan for restoration, rehabilitation, replacement, or acquisition of the equivalent of the natural resources under their trusteeship. [§2706 (c)]

Natural resource damage defined in OPA has been criticized to be controversial. The various reasons given are as follows:[136]
First, the restoration or reinstatement of the environment is viewed as unnecessary because the marine environment will recover naturally;
Second, OPA fails to preempt liability for natural resource damages under the state laws, thereby subjecting shipowners to a wide variety of environmental assessment methods and claimants;
Third, OPA allows recovery for the "loss of use" of natural resources and values calculated by computer modeling.

On the other hand, there are different views concerning restoration of the marine environment. Some studies showed that the restoration is the most economically efficient measure as a remedy for the polluted environment.

4.3 Comparative analysis

It is interesting to notice the different trends at international and US levels with respect to environmental damage that while the US is actively developing methods and procedures for restoring ecosystems, the international community is still debating whether claims for injury to the environment as such should be admissible. The OPA allows recovery for the "loss of use" of natural resources and values calculated by computer modeling, both of which have been rejected under the international regime. Based on the Fund Resolution No.3, the practice under the international conventions is still to reject claims for damage to the environment based upon "theoretical models".[137]

OPA provides that parties are liable to the relevant authorities for the diminution in value of natural resources pending restoration, and not merely the cost of restoration. By contrast, CLC expressly limits general environmental damages to any reasonable measures of reinstatement actually taken or to be taken.[138]

It is recognized that putting a value on the environment has caused difficulties in the past, and this is one of the reasons why the CLC 1992 sought to avoid the issue. The Antonion Gramsci and Patmos cases, where attempts were made to assess compensation using an abstract quantification of damage calculated by theoretical models, have cast long shadows.[139]

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[136] Holt, M. and Johnson, L., Oil Pollution Act of 1990: Cure Catalyst, or Catastrophe, IOSC, p7. More discussion on the environmental damage per se under the Fund, see p7-10.
[137] IOPC Fund Resolution No.3, Fund A/ES.13.
[138] Little, G. and Hamilton, J., 1997, p401.
[139] Wilkinson, D., 1993, p79, 82-88; Little, G. and Hamilton, J., 1997, p401.

The environmental damage quantification in the international regime is in contrast with the OPA provision where abstract quantification of non-market environmental damage is allowed in accordance with prescribed assessment standards. Whatever the merits of the US model, and few states under the international regime have developed active interest, the lack of clear damage assessment standards and compensable value characteristics within the international regime ahs presented a significant obstacle to the uniform application of environmental compensation rules.[140]

The way the international conventions laid down the conditions for compensating environment damage was criticized. The CLC requires that the environment must be damaged and the claimant must have sustained an economic loss that can be quantified in monetary terms. In other words, if the coastal area that suffers a spill by permanent oil is a protected area or a natural reserve which is not open to the public in return for an entrance fee, this means that there will no be any income and hence no economic loss. Such economic conditions distort the environmental aspect of the damage. The conditions laid down in the Claims Manual are hence considered in contradiction with the Fund Convention 1992 and should therefore be reconsidered.[141]

Further, by limiting compensation to the reasonable costs of re-instatement, unquantifiable or unquantified claims are eliminated. However, difficulties may arise in respect of when and to what extent re-instatement of the environment is "reasonable" and in dealing with major spills which produce "irreparable environmental damage".[142] By limiting such compensation to the costs of reasonable measures of reinstatement, the CLC 1992 may not be sufficiently broad to allow compensation where the marine oil pollution incidents causes economically irreparable environmental damage or damage of a kind which is extensively mitigated by natural regeneration. Wilkinson was in favor of the US approach to reject the "diminution of value test" which is singularly inappropriate for environmental damage, which is often not readily reflected in the market values.[143]

Some even believed that contrary to the Fund Secretariat's position, claims for environmental damage based on a quantification of the environmental damage calculated in accordance with theoretical environmental models should be eligible. By definition, it is not the economic loss that is at issue but environmental damage; the restoration of nature and not the compensation of a theoretical economical loss. Relevant criteria for the restoration of a biological community would be the conditions of the natural resources and services that would have existed had the environmental damage not occurred, estimated on the basis of the best information available, including inter alia, historical data, reference data, control data or data on incremental changes, some of them being of a nature.

Other differences between the CLC and OPA include the concept of trustee, which means a state is entitled to environmental compensation as *parens patriae* (guardian) of collective interest, that is, as representative of its affected public as a national community. In OPA, it is specifically

[140] Mason, M., 2003, p4; Little, G. and Hamilton, LMCLQ, 1997, p68.
[141] Vanheule, B., 2003, p557.
[142] Wilkinson, D., 1993, p84-85.
[143] Wilkinson, D., 1993, p89.

provided that a state may act as the trustee for environmental interest, while this concept is lacking in the CLC and even rejected by the Fund. The CLC makes no distinction between private property damage and public property damage. Within the work of the WG established in April 2000, France submitted that a concept of compensation for environmental damage as a violation of state rights over its collective assets should be added to the Claims Manual of the 1992 Fund. However, this recommendation failed to gain wide support within the WG as it was judged to fall outside the scope of the pollution damage defined in the CLC 1992.[144] The Fund continues to maintain that such theoretical formulations of public or collective environmental damage would open up liability determination to arbitrary decisions in national courts, perhaps even hindering private victims in their own claims for compensation.[145]

In its post-Erika proposals, the European Commission, echoing French and Italian concerns, called for the CLC 1992 to be amended to enable restorative compensation for damage to the environment in a manner consistent with wider Commission proposals on civil liability for environmental damage.[146] However, although identified scope for more innovative recovery measures, the working group did not accept such proposals to allow environmental compensation beyond economic loss. On the other hand, the delegations of Australia, Canada, Sweden and the UK proposed a more modest recommendation to liberalize the criteria for admissibility of reinstatement costs to include recovery efforts centered on the damage areas (short of substitute habitat enhancement or creation). However, this was not accepted either.[147]

5. Evaluation

From the comparative analysis of the different approaches adopted under the CLC and OPA concerning pollution damage, it seems that the pollution damages compensated under OPA are broader than those under the CLC, at least as far as the pure economic losses and environmental damage *per se* are concerned.

OPA is intended to address the consequences of discharging, or threatening to discharge, any amount of any type of oil into the navigable waters of the US.
The CLC and Fund Convention apply only to ships carrying persistent oils as bulk cargo.
Thus, the conventions exclude all liability for spills of refined products such as gasoline, kerosene, and light diesel oils which are covered by OPA. OPA is expansive in the domestic context.
The CLC definition of pollution damage will not encourage claims for damage to the environment beyond reasonable measures of reinstatement and claims for loss of profits, and the loss of use *per se* is specifically excluded.[148]

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[144] 92FUND/WGR.3/8/8, 2001.
[145] Mason, M., 2003, p4.
[146] Ringbom, H., The Erika accident and its effects on EU maritime regulation Maritime Safety Unit, DG Energy and Transport, European Commission, 2001.
[147] 92FUND/A.6/28, 2001, p7-9; Annual Report 2001, IOPC Fund, p34.
[148] For a comparison with the position under OPA, see Holt, M. and Reed, C., Natural Resource Damages for Oil Spills: the International Context, Natural Resources and Environment, 1995, Vol.9, p28.

V. Compulsory insurance

1. General requirement of compulsory insurance

Both CLC and OPA require compulsory insurance or some form of financial guarantee, and both allow direct action against financial guarantors.

Article VII.1 of the CLC provides that the shipowner "registered in a Contracting State and carrying more than 2,000 tons of oil in bulk as cargo shall be required to maintain insurance or other financial guarantee".

OPA in §2716 (a) provides that the responsible party for vessels "over 300 gross tons using any place subject to the jurisdiction of the United States", or vessels "using the waters of the exclusive economic zone to transship or lighter oil destined for a place subject to the jurisdiction of the United State" shall establish and maintain the financial evidence sufficient to meet the maximum amount of liability as described in the limits of liability provision.

Comparing these provisions, one can discover that both regimes link the compulsory financial guarantee with the limitation of liability. Both require that the amount of compulsory insurance or financial guarantee shall be fixed at the amount of limitation of liability.

There are also a few differences between the two regimes:

First, the minimum tonnage requirements of these two regimes are different, being 2,000 tons under the CLC and 300 tons under OPA. This may lead to the result that tankers between 300 and 2000 gross tons do not take oil pollution liability insurance under the CLC, but do so under OPA.

Second, the compulsory insurance requirement under CLC applies only to the shipowners whose registration state is a contracting party to the CLC; OPA does not adopt the traditional flag state approach (jurisdict personam), but applies *lex situs*. One important result of such a law of the place is the protection of waters under US jurisdiction.

Third, failure to establish required liability insurance leads to severe sanction under OPA, but the CLC has only a very general provision of prohibition to trade for such violation. OPA provides that failure to establish acceptable evidence of financial responsibility, documented by certificate of financial responsibility, may result in prevention or cessation of operation, detainment of vessel, denial of entry to the US ports, a civil penalty of up to $32,500 per day of violation, or seizure and forfeiture of the vessel. One may remember from the examination of the legal history, the more severe punishment for lack of financial guarantee (such as denial of entry) was not accepted at the international conference preceding the CLC mainly due to the objection of some powerful maritime states.

2. Forms of financial guarantee

CLC provides in Article VII.1 that the financial security may take the form "such as the guarantee of a bank or a certificate delivered by an international compensation fund".

In the US, the federal regulations relating to certificates of financial responsibility[149] are contained in the Code of Federal Regulations Vol.33, Parts 4, 130 *et al*.[150] the regulations provide that an applicant must establish evidence of financial responsibility by one or more of the following schemes: insurance, surety bond, self insurance.

3. Direct action

3.1 CLC

Article VII.8 of the CLC 1992 provide for the right of direct action: "Any claim for compensation for pollution damage may be brought directly against the insurer or other person providing financial security for the owner's liability for pollution damage."

A characteristic feature of P&I Club Rulebooks is that they provide a rule stating that they will indemnify their members in respect of such sums as the insured member has paid. This is known as the "pay first rule", "pay as has been paid" rule or "pay to be paid" rule. Such a rule may constitute a legal hurdle to any third party (to the insurance contract) who tries to recover from the Club directly, even in a situation where the third party has acquired a right of action. (The practice is often that the Clubs are flexible in providing funds to the owner without insisting on prior payment. However, this remains discretionary on the part of the Clubs.)

CLC 1992 do not contain any provision stating a clause similar to the "pay first" rule is not applicable. However, Article VII.8 of the CLC provides that "the defendant shall not avail himself of any other defence which he might have been entitled to invoke in proceedings brought by the owner against him". This provision would effectively render the "pay first rule" inoperative. Hence, the right of recovery of oil pollution victims against underwriters is not affected by the "pay first rule".

The implications of the "pay first rule" were taken into consideration by the Fund in its decision not to pursue an action against the Swedish Club as insurer of the owner of Rio Orinoco.[151]

3.2 OPA

OPA changed the legal situation in the sense that it goes beyond the pre-OPA legislation contained in FWPCA where the right of direct action against the guarantor could only be utilized

[149] For the history of vessel financial responsibility in US law, see US Department of Transport, United States Coast Guard, Regulatory Impact Analysis, Financial Responsibility for Water Pollution (Vessels) (CGD 91-005), June 1994, p6.
[150] See: Federal Register, Vol.59, No.126, 1 July 1994, p34210-34267; and Federal Register, Vol.61, No.46, 7 March 1996, p9264-9307.
[151] Oil spill Canada, 16 October 1990. See IOPC Funds Annual Report 1995, p37-38.

by the US. 33 USC §2716 (f) (1) provides now that:
"Subject to paragraph (2), a claim for which liability may be established under section 2702 of this title may be asserted directly against any guarantor providing evidence of financial responsibility for a responsible party liable under that section for removal costs and damages to which the claim pertains. In defending against such a claim, the guarantor may invoke –
(A) all rights and defenses which would be available to the responsible party under this chapter;
(B) any defense authorized under subsection (e) of this section; and
(C) the defense that the incident was caused by the willful misconduct of the responsible party.
The guarantor may not invoke any other defense that might be available in proceedings brought by the responsible party against the guarantor.

The defenses referred to in (A) are those referred to in §1003 of OPA (33 USC §2703), being damages or costs caused solely by act of God, act of war, act or omission of a third party, or any combination of these three defenses. §1003 exempts the responsible party "to the extent that the incident is caused by the gross negligence or willful misconduct of the claimant". (§1003 (b))

The defenses referred to in (C), causative willful misconduct, is similar to that in Article VII.8 of CLC 1992. In this respect, CLC 1992 and OPA grant to the underwriter (guarantor) the right which is normally granted to an insurer in a policy of insurance (which is also enshrined in the MIA 1906).

P&I Clubs have been seriously concerned with the possible effects of OPA. They have insisted that their role is as insurers and not as guarantors.[152] As guarantors, they could be faced with unlimited liability.[153] Of possibly more serious concern for P&I Clubs was the possibility of what has been referred to as "unlimited Horizontal Liability".[154] It has been said that it is also possible that individual state statutes in the US could repeatedly expose a P&I Club to liability for the same incident, i.e. that the P&I limit will be construed as a separate limit by each individual state.[155]

3.3 Evaluation

Both CLC and OPA allows for direct action for pollution damage claims against the financial guarantor.

4. Sanctions

The sanctions for ships not satisfying the requirement of compulsory insurance under the CLC is that the contracting state shall not permit such a ship under its flag to trade. (Article VII.10)

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[152] Alcantara, L. F., and Cox, M.A., OPA Certificates of Financial Responsibility, JMLC, Vol.23, No.3, July 1992, p378.
[153] See, in particular, the statement of Richard Youell before the House Merchant Marine and Fisheries Subcommittee on Coast Guard and Navigation, 6 November 1991, p3-4.
[154] Alcantara, L. F., and Cox, M.A., 1992, p380.
[155] See the statement of Richard Youell before the House Merchant Marine and Fisheries Subcommittee on Coast Guard and Navigation, 6 November 1991, p6.

The sanctions under OPA include withholding clearance, denying entry to or detaining vessels, seizure of vessel. (§2716 (b)) a vessel owner or operator who fails to maintain the required evidence of financial responsibility may also be subject to a civil penalty of not more than $27,500 per day of violation under OPA and may be subject to additional administrative and civil penalties. (§2716 (a))

The sanction under the CLC not permitting to trade is a rather vague concept, and there is no specific provision on how to prohibit such ships to trade. Hence, this sanction is not so useful in practice. The sanctions under OPA are much more severe than those under CLC.

5. Summary

Both CLC and OPA require the shipowner (or responsible party under OPA) to maintain compulsory insurance up to the amount of the limitation of liability, and both allow for direct action against the financial guarantor. However, the non-preemption provision of OPA makes those who provide financial guarantee under OPA are potentially faced with potentially unlimited liability.

VI. Compensation fund

1. Change from 1971 Fund to 1992 Fund

1.1 Deletion of roll-back function

The main changes that were brought to the Fund Convention 1971 were the deletion of the function of the Fund to provide relief to shipowners, the extension of the geographical scope of application of the Convention to cover damage in the Exclusive Economic Zone, an increase in the limit of compensation available, and the inclusion of a procedure for updating the limitation amount. Other changes include, for instance, the CLC 1992 is extended to include oil pollution from tankers in ballast and from combined carriers provided that it cannot be proved that the tanks of such vessels were free of oil; the “incident” has included an occurrence which creates a grave and imminent threat of causing pollution damage.

Article 4 (4) provided that the compensation amount available under the Fund Convention is limited to 135 million SDR. (The newly added Article 4 (4) (c) stated “The maximum amount of compensation referred to in sub-paragraphs (a) and (b) shall be 200 million units of account with respect to any incident occurring during any period when there are three Parties to this Convention in respect of which the combined relevant quantity of contributing oil received by persons in the territories of such Parties, during the preceding calendar year, equaled or exceeded 600 million tons.”)

With respect to the exoneration of liability of the Fund, although the 1992 Fund still enjoys the same exemption as the 1971 Fund, it is specifically provided in Article 4 (3) of the Fund Convention 1992 that such exoneration of the Fund does not apply to preventive measures. As a result, the Fund should always compensate the preventive measures adopted by the victims.

As the aim of providing relief to the shipowner was deleted, the function to indemnify the shipowner and its insurer (Article 5 of the Fund Convention 1971) for certain amounts between certain amount and the limitation amount under the CLC was also removed. This showed the change of social needs and the re-allocation of balances between the shipping and the oil industry.

The list of conventions on prevention of oil pollution that the shipowner needs to comply with in order to enjoy the benefit of the Fund was deleted as well. This was due to the consideration that the liability system should serve the goal of compensation?

1.2 Contribution to the Fund

The complicated provision on the initial contribution in Article 11 of the Fund Convention 1971 was deleted. In the Fund Convention 1992, there is only one sort of contribution, the annual contribution, which is directly related to the amount of oil transport at sea.

With respect to the obligation of the Contracting State to submit an oil report, the Fund Convention 1992 has added in Article 15 a paragraph concerning the cases where the non-submission or late submission caused financial losses for the Fund. In such a case, the State shall be held liable to compensate the Fund for such loss.

As there was consideration that the well function of the Fund should be ensured by contributions that are fairly distributed around the world,[156] in the Fund Convention 1992, an Article 36 TER was added stating that the aggregate amount of the annual contributions from one single State shall not exceed 27.5% of the total amount of annual contributions. Otherwise, the contributions of all contributors in that State shall be reduced *pro rata* till their aggregate contribution equals 27.5%, and accordingly, contributions from other States should be increased *pro rata* so as to ensure the total amount of contributions will reach the required amount of contributions decided by the Assembly. This operation will continue "until the total quantity of contributing oil received in all Contracting States in a calendar year has reached 750 million tons or until a period of 5 years after the date of entry into force of the said 1992 Protocol has elapsed, whichever occurs earlier".[157]

The Japanese oil industry is by far the largest contributor to the 1992 Fund. In the year 2003, the contribution from the Japanese industry counted for 20% of the total contributions.[158]

1.3 Influence of such change

The 1992 Conventions have retained the basic structure and essential principles of the original

[156] IOPC Fund 25 years.
[157] Article 36 TER (4) of the Fund Convention 1992.
[158] Jacobsson, M., 2003, p16. According to the statistics in 2003, the other major contributors are as follows: Italy (11%), Republic of Korea (10%), the Netherlands (8%), France (8%), United Kingdom (6%), Singapore (5%), Spain (5%) and Canada (5%).

instruments, the main changes dealt with increasing the amount of compensation, extending the scope of application to include the Exclusive Economic Zone and clarifying the term "pollution damage". The operation of the Fund is simplified and specified.

When it entered into force in 1978, the 1971 Fund was a small organization with only 14 Member States. When the Fund Convention 1992 entered into force on 30 May 1996, there were only 9 Member States to it. The number of membership has been increasing since then. As of March 2005, there were 86 Member States to the 1992 Fund, and in addition, there are six States which have deposited instruments of accession to the Fund Convention 1992, in respect of which the Fund Convention 1992 will enter into force within 8 months. As a result, by 21 October 2005, the number of Member States of the 1992 Fund will be increased to 92.[159] This growth in membership is an indication that governments have considered that the international compensation regime has in general worked well.[160]

The 1992 Conventions have incorporated the major changes made through the 1984 Protocols and reduced the entry into force conditions to facilitate early regime adoption without US ratification.

2. Amount of compensation

2.1 IOPC Fund

The aggregate amount payable under the IOPC Fund 1992 (2000) in respect of one incident shall be limited to:
(a) 135 million SDR (203 million SDR);
(b) pollution damage resulting from natural phenomenon of an exceptional, inevitable and irresistible character 135 million SDR(203 million SDR);
(c) The maximum amount of compensation shall be 200 million SDR (307 million SDR) with respect to any incident occurring during any period when there are three parties to this Convention in respect of which the combined relevant quantity of contributing oil received by persons in the territories of such parties, during the preceding calendar year, equaled or exceeded 600 million tons. (Article 4.4)

The aggregate amount payable by the Supplementary Fund (the total sum together with the amount paid under the 1992 Protocols) shall not exceed 750 million SDR.

It should be noted that different than the provisions on the liability limits under the CLC, the maximum compensation available from the Fund is not related to the tonnage of the vessel.

2.2 OSLTF

The Internal Revenue Code (Title 26 U.S.C. §9509 (c) (2)) provides that the maximum amount

[159] SUPPFUND/A.1/7, 92FUND/A/ES.9/4, 25 February 2005.
[160] Jacobsson, M., 2003, p24.

payable from the OSLTF shall be $1,000 million per incident, and for natural resource damage assessments and claims in connection with any single incident shall not exceed $500 million. The Energy Policy Act of 2005 later raised the limit of the Fund to $2.7 billion.[161]

3. Coverage

3.1 IOPC Fund

The IOPC Fund shall apply "exclusively" to "pollution damage" caused in the territory (including territorial sea) and EEZ of a contracting state, and "preventive measures, wherever taken, to prevent or minimize such damage". The coverage of the IOPC Fund is thus the same as that of the CLC.

In addition, Article 4.1 further provides that "Expenses reasonably incurred or sacrifices reasonably made by the owner voluntarily to prevent or minimize pollution damage shall be treated as pollution damage for the purposes of this Article." This may have the effect of encouraging the shipowner to take on his own initiatives preventive measures. However, the shipowner is put the same position as the other claimants.[162] This means that potentially he may also be confronted with the maximum amounts available via the Fund if the damage is very high.

The Fund Convention gives limited guidance on the specific types of damages that are recoverable. The Fund publishes regularly the Claims Manuals which can be used as practical guides for the presentation of claims under the Fund Convention. The Claims Manuals provide an outline of the current legal framework under the CLC and the FC, and explain the criteria applied by the Fund in determining whether the claims are admissible.[163]

The exoneration of the Fund to a large extent mirrors the shipowner's exoneration under the CLC. (E.g. Article III.3 of the CLC and Article 4.3 of the Fund Convention on comparative negligence of the third party claimant.) However, the 1992 FC adds that the preventive measures are not subject to such exemptions. As a result, preventive measures shall always be compensated under the 1992 Fund.

3.2 OSLTF

§2712 (a) provides that the OSLTF shall be available for the payment for pollution damages, costs of removal, assessment, restoration and operational activities:

"(1) the payment of removal costs, including the costs of monitoring removal actions…consistent with the National Contingency Plan

(A) by Federal authorities; or

(B) by a Governor or designated State official…;

(2) the payment of costs incurred by Federal, State, or Indian tribe trustees in carrying out their

[161] See the website of the US Coast Guard: www.uscg.mil/hq/npfc/About%20Us/opa.htm

[162] De la Rue, C. and Anderson, C.,1998, p112,141.

[163] See De la Rue, C. and Anderson, C.,p141-142. The Claims Manuals do not consider the legal issues in detail, and they reserve the Fund's right to examine each claim on its merits, in the light of particular circumstances.

functions under section 2706 of this title for assessing natural resource damages and for developing and implementing plans for the restoration, rehabilitation, replacement, or acquisition of the equivalent of damaged resources… consistent with the National Contingency Plan;
(3) the payment of removal costs… consistent with the National Contingency Plan as a result of, and damages resulting from, a discharge, or a substantial threat of a discharge, of oil from a foreign offshore unit;[164]
(4) the payment of claims… for uncompensated removal costs… consistent with the National Contingency Plan or uncompensated damages;
(5) the payment of Federal administrative, operational, and personnel costs and expenses reasonably necessary for and incidental to the implementation, administration, and enforcement of this…Act with respect to prevention, removal, and enforcement related to oil discharges…"[165]

4. Financing of the fund

4.1 IOPC Fund

Article 10.1 of the Fund Convention 1992 provides that the contributions in respect of each Contracting State are paid by oil receivers who receive in total quantity more than 150,000 tons contributing oil. The contributing oil for this purpose refers to oil carried by sea to the ports or terminal installations in the territory of the contracting state; and oil received in installations in the territory of the contracting state after being carried by sea and discharge in a port or terminal installation of a non-Contracting State, provided that contributing oil shall only be taken into account on first receipt in a Contracting State after its discharge in that non-Contracting State.

The oil receipts as defined by the Fund Convention, according to De la Rue, are not limited to imports by international carriage, but include coastal deliveries as well.[166]

4.2 OSLTF

The OSLTF has several "recurring and nonrecurring" sources of revenue.[167] According to Title 26 U.S.C.§9509 (b), the financing sources of the OSLTF include:

(1) 5% per barrel tax on imported and domestically produced oil under section 4611 (relating to environmental tax on petroleum)
(2) A second major source of funding comes from the transfers from the previously existing pollution funds, including the revolving fund under the CWA, the Deepwater Port Liability Fund, the Trans-Alaska Pipeline Liability Fund, and the Offshore Oil Pollution Compensation Fund.
(3) The third source of funding comes from interest on the Fund principal from US Treasury investments. As a result of historically low interest rates, interest income has declined significantly in recent years, falling from almost $65 million in 1995 to $13.5 million (45 % of

[164] A foreign offshore unit is a facility located in the territorial sea or on the Continental Shelf of a foreign country used for exploitation of oil resources produced form the seabed. See De la Rue, C. and Anderson, C.,1998, p197.
[165] 33 U.S.C.§2712 (a).
[166] De la Rue, C. and Anderson, C.,1998, p131-132.
[167] Report on Implementation of the Oil Pollution Act of 1990, 2005, p6.

revenue) in 2004.[168]
(4) The fourth source of funding is recoveries of costs and damages from responsible parties and guarantors.
(5) The fifth source is penalties. Section 311 of the CWA, section 309 (c) of the CWA for violation of section 311, the DPA 1974, and section 207 of the TAPAA are required to be deposited into the Fund.

5. Operation of the fund (as first resort or only residual)

5.1 IOPC Fund

The IOPC Fund intervenes (a) when no liability arises under the CLC, (b) the shipowner and his financial guarantor is insolvent, and (c) the compensation under the CLC is insufficient. (Article 4.1) However, the Fund shall incur no liability if the pollution damage resulted from an act or war or state owned ship on non-commercial service, or "the claimant cannot prove that the damage resulted from an incident involving one or more ships". (Article 4.2)

Cases where the Fund intervenes:
(a) There are mainly two situations where there is no liability under the CLC: where the source of pollution is unidentifiable, and where the shipowner is exonerated from liability under the CLC. Under the first situation, when the ship responsible for the discharge of oil cannot be identified, the Fund will not pay compensation.[169] This is mainly because of the difficulties in proving that the damage resulted from an incident involving one or more ships. (Article 4.2) So far there has been no case where the compensation was paid by the Fund for pollution damage caused by an unidentified ship.[170]

A second type of situations where the shipowner is not liable under the CLC is when he is exempt from liability. Except for the act of war where the Fund is exonerated as well, for other exemptions of the shipowner under the CLC, the Fund still has to pay. These include the following: when the damage resulted from force majeure, when the damage is wholly caused by act or omission of a third party done with the intent to cause damage, and when damage was wholly caused by the negligence or wrongful act of government in maintaining lights or other navigational aids. (This corresponds with Article III.2)

(b) Although there is a compulsory insurance requirement under the CLC to avoid that the shipowner would be financially insolvent, it might still happen that the shipowner is financially not capable of meeting his obligations because his ship carries less than 2000 tons of oil and hence not bound by the compulsory insurance requirement,[171] or the insurance cover and other assets are insufficient.[172]

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[168] Report on Implementation of the Oil Pollution Act of 1990, 2005, p6. The Department of Treasury serves as the investment manager for the OSLTF.
[169] See De la Rue, C. and Anderson, C.,1998, p135-136.
[170] De la Rue, C. and Anderson, C.,1998, p136.
[171] For study on cases where the ships carrying less than 2000 tons of oil caused damage and compensated by the Fund, see De la Rue, C. and Anderson, C.,1998, p138-139.
[172] De la Rue, C. and Anderson, C.,1998, p139-140.

(c) By far the most common reason for claims against the Fund is that the shipowner is entitled to limit his liability under the CLC while the damage exceeds his limits.[173] In such a case, the Fund will pay for the excess of the established claims above the CLC limits, up to the maximum amount recoverable under the Fund Convention.

5.2 OSLTF

Generally, claims for removal costs or damages must first be presented to the responsible party or guarantor. Failure to present a claim as required by the statute may result in dismissal of the claim. (§2713) However, according to §2713 (b), claims may be presented first to the Fund if:
(A) the President has advertised or otherwise notified claimants because the responsible party and the guarantor deny a designation, or the source of the discharge or threat is a public vessel or is unknown;
(B) by a responsible party who may assert a claim using the defense prescribed in OPA or in excess of his limitation of liability;
(C) by a Governor of a State for removal costs incurred by that State; or
(D) by a US claimant in a case where a foreign offshore unit has discharged oil causing damage for which the Fund is liable under section 2712 (a).

The Fund is not available to pay any claim for removal costs or damages to a particular claimant to the extent that the incident, removal costs, or damages were caused by the gross negligence or willful misconduct of the claimant. (§2712 (b)) in addition, no claim may be approved by the Fund during the pendency of any action by the person in court to recover costs which are the subject of the claim.

If a claim is presented to the responsible party in the first instance, and the responsible party denies liability for the claim or fails to settle the claim within 90 days after presentation, the claimant may elect to commence an action in court against the responsible party or guarantor or to present the claim to the Fund. The claimant may also present any claim for uncompensated damages and removal costs to the Fund.[174]

VII. Conclusions

The differences in the general principles of the international conventions, the US regime and the Chinese law on vessel-source marine oil pollution have been analyzed above. Here under is a table summarizing the major differences among these regimes:

Table: Comparison of the international, US and Chinese marine oil pollution compensation regimes

	International (after 2000	US (after amendments in	Chinese MEPL

[173] De la Rue, C. and Anderson, C., 1998, p135, 140-141.
[174] De la Rue, C. and Anderson, C., 1998, p199.

	Protocols)	2005 and 2006)	
Responsible party	Shipowner	Shipowner, operator and demise charterer	Polluter; Ships in international trade: same as CLC
Basis of liability	Strict, channelling	Strict, joint and several	Strict; Ships in international trade: same as CLC
Defenses to liability	Act of war, hostilities, civil war or insurrection; A natural phenomenon of an exceptional, inevitable and irresistible character; An act or omission of a third party with intent to cause damage; The negligence or other wrongful act of any government or other authority responsible for the maintenance of lights or other navigational aids, in the exercise of that function	Act of God; act of war; act or omission of a third party when the responsible party has exercised due care and took precautions; gross negligence or willful misconduct of the claimant. In order to benefit from the defenses, the responsible party has to report the incident and provide all reasonable cooperation and assistance.	Ships in international trade: same as CLC
Limitation of liability	Ships ≤ 5000 GT, 4.5 million SDR ($7.3 million) Ships > 5000 GT, 4.5 million SDR ($7.3 million) + 631SDR/ton ($1021/ton) Maximum: 89.8 million SDR ($145.3 million)	Single hull tanker > 3000GT, higher of $ 3,000/GT or $ 22,000,000 Single hull tanker ≤3000 GT, higher of $3,000/GT or $6,000,000 Double hull tanker > 3000GT, higher of $ 1,900/GT or $ 16,000,000 Double hull tanker ≤3000 GT, higher of $ 1,900/GT or $ 4,000,000	Ships involved in international trade: same as in CLC; Otherwise: Claims for loss of life or personal injury: 300≤ship≤500GT, 333,000 SDR; Ship >500 GT, 333,000 SDR plus the amount as follows: For each ton from 501 to 3000 tons: 500SDR For each ton from 3,001 to 30,000 tons: 333SDR For each ton from 30,001 tons to 70,000 tons: 250SDR For each ton in

			excess of 70,000 tons: 167 SDR; Claims other than loss of life or personal injury: 300≤ship≤500GT, 167,000 SDR; Ship >500 GT, 167,000 SDR plus the amount as follows: For each ton from 501 to 30,000 tons: 167SDR For each ton from 30,001 tons to 70,000 tons: 125SDR For each ton in excess of 70,000 tons: 83 SDR;
Loss of limitation right	Pollution damage resulted from the personal act or omission of the shipowner, committed with the intent to cause damage, or recklessly and with knowledge that such damage would probably result.	When the incident is proximately caused by gross negligence or willful misconduct of the responsible party, or violation of safety regulation; Failure or refusal of the responsible party to report the incident, to provide cooperation and assistance, or to comply with an order without sufficient reason	
Recoverable damages	Loss or damage caused outside the ship by contamination resulting form the escape or discharge of oil from the ship, wherever such escape or discharge may occur; Compensation for impairment of the environment other than loss of profit from such impairment shall be limited to	Removal costs; Natural resource damages; Damages to property; Damage to subsistence use; damages to revenues; Damages to profits and earning capacity; Damages to public services	Loss of life or personal injury or loss of or damage to property including damage to harbour works, basins and waterways and aids to navigation occurring on board or in direct connection with the operation of

	costs of reasonable measures of reinstatement actually undertaken or to be undertaken; Costs of preventive measures and further loss or damage caused by preventive measures		the ship or with salvage operations, as well as consequential damages resulting therefrom; loss resulting from delay in delivery in the carriage of goods by sea; loss resulting from infringement of rights other than contractual rights occurring in direct connection with the operation of the ship or salvage operations; measures taken to avert or minimize loss and further loss caused by such measures.
Financial responsibility	Ships carrying more than 2,000 tons of oil in bulk as cargo are required to maintain compulsory insurance	Vessels over 300 gross tons	
Sanctions for failure to obtain compulsory insurance	Not allowed to trade by the flag state	Withholding clearance; Denying entry to US or detaining vessels; Seizure of vessel	
Compensation fund	IOPC Fund	OSLTF	Domestic fund yet to be established
Maximum amount of fund	203 million SDR ($328.5 million) (Supplementary Fund: 750 million SDR, or $1213.8 million)	$ 2.7 billion	
Financing of fund	Levy on contributing oil	5-cent-per-barrel tax; Transfers from other funds; Recovered costs; Interest; Penalties.	

The conversion rate of SDR the rate of 15 May 2008, as defined by the IMF, 1SDR = USD 1.618450.

The evolvement of legislative initiatives addressing oil pollution liability and compensation has been a tedious process and the transformation of these initiatives into legislation has been facilitated by major oil spills. Both the international and the US oil pollution liability regimes came as reaction to some major oil spill incidents. These incidents serve as catalysts for developments of oil spill liability regimes both internationally and domestically in the US.[175] Inevitably, regimes thus developed may have some restrictions, being that they are formulated to address immediate problems illuminated by the incidents as a compromise between conflicting interests rather than giving sufficient consideration and were in particular influenced by commercial interests.[176]

First of all, through a vertical comparative analysis between the 1969/1971 and the 1992 Conventions, some concluding remarks can be reached:

1. The liability limits of the shipowner under the CLC are substantially increased in the 1992 Protocols. At the same time, the conditions for a shipowner to lose his limitation right are amended so that it will be more difficult for a shipowner to lose his right of limitation. These conditions are similar to the exemptions in the insurance policy. Hence, if the victims challenged the limitation of the shipowner, it would very like result in the loss of insurance coverage as well. So the victims may seem being improved as the available compensation was higher than under the original CLC 1969, in fact, this is still not sufficient in case of a major oil spill, but the victims would have no incentive to challenge the limited liability (albeit insufficient) as they would then be confronted with the risks of losing financial guarantee which might in turn lead to no compensation at all. So for the victims, it might be better to accept insufficient but at least some compensation, instead of expecting full but eventually no compensation.

2. The channelling provision is further strengthened in the sense that more parties are specifically exempted from liability. For many parties involved in the shipping activities, such as pilots, charterers and salvors, the changes in the CLC 1992 are clearly in their advantage in the sense that their liabilities are specifically excluded. According to the CLC 1969, the responsibilities of these parties were not clear and it depended largely on the interpretation of national courts. The CLC 1992, through the change of the channelling provision, added a list of parties that should be exempt from liability. The original intention of such a change was said to encourage the preventive measures from parties like pilots and salvors, however, when carrying out their functions, knowing that they will not be faced with liability under the CLC, it is doubtful if more incentive for prevention can be expected from these parties.

3. The compensation available from the Fund is significantly increased as well, together with the increase of liability of the shipowner under the CLC. As a result, the two tier structure of the international oil pollution compensation regime remains unchanged. The contribution from the

[175] National Research Council, Double-Hull Tanker Legislation, 1998.
[176] Kim, I., 2003, p266.

oil industries has to be increased, thus it may have influence on the oil industries of the major import states. In this respect, Japan as the major oil contributor to the 1971 Fund successfully lobbied for a capping provision to be introduced into the 1992 Fund. If it were not such a capping provision, based on the oil received in Japan, it would have easily contributed more than 27.5% to the 1992 Fund.

4. The scope of compensation is generally broadened, which includes the geographic scope of compensation, the type of ship and incident covered. In another words, it can be understood as the pollution damage recoverable under the CLC is amended in several aspects. First, preventive measures taken when there is no actual spill, but threat of spill which was originally not covered by the CLC 1969 is now covered under the CLC 1992. This is through the change of definition of "incident" (Article I.8 of the CLC). Second, the tanker in ballast that has spilled oil and caused damage which was not covered under the CLC 1969 is now covered under the CLC 1992 through the change of definition of "ship" (Article I.1 of the CLC). Third, the environmental damage which was not mentioned in the CLC 1969 is now at least to certain extent taken into account in the CLC 1992 definition (Article I.6). However, the compensation for environmental damage is restricted to the "costs of reasonable measures of reinstate actually undertaken or to be undertaken", which also caused some debate. The method of using "costs" to define environmental damage which is not easily valuated in monetary terms is criticized. Moreover, the practice of the Fund is to exclude claims based on theoretical or abstract models. As mentioned in Chapter 4, this issue on how to define recoverable pollution damage under the international conventions is a developing one. The Fund tried to improve its interpretation through its experience, and the Working Group of the Fund is still carrying out studies with the hope to come out with a more satisfactory definition.

In all, despite some criticism and dissatisfaction from different interests, the changes in the 1992 Conventions are firmly implemented in 1996 when the 1992 Protocols became effective. However, if these amendments are indeed improvements compared with the previous situation, one shall examine in Chapter 9 using the economic criteria.

Second, from the parallel comparative analysis between the international and the US regime, it is found that the international and the US oil pollution liability regime bear some similarities, mainly the two tier system and strict liability up to a certain amount, together with compulsory insurance. However, it is also found that in many important aspects these two regimes largely diverge. Other differences are not fully discussed, including the geographical scope of application, definition of ship, oil.

One major difference between the CLC and OPA is that CLC channels the liability exclusively to one single party, while OPA confers liability on as many as possible parties. CLC directs all liability at the registered tanker owner, and OPA imposes liability on the shipowner, operator and demise charterer.

A second difference is that the limitation under OPA is of a much higher amount. CLC 1992 strengthens the position of the shipowner in the sense the breaking of limitation rights has

become almost impossible. OPA to the contrary has imposed more restriction on the responsible party in order for them to benefit the limitation right. Moreover, OPA does not preempt the state laws that might provide for unlimited liability. Hence, the limitation of liability under OPA is considered to be almost symbolic.[177] While the international regime is based on the assumption that oil spill liability should be limited, the US regime provides substantially unlimited liability through easily broken liability limits, additional liability under state legislation and thus a multiplicity of claims in state and federal courts.[178]

Third, the compulsory financial guarantee takes different forms and has different minimum tonnage requirements.

A fourth significant difference between the two regimes can be found in the scope of recoverable damages. The international regime is conservative in recognizing environmental damage. On the other hand, the US regime has recognized broader compensation for natural resource damages.

Fifth, the compensation funds are organized differently and provides for different levels of compensation.

From the point of view of victim, US law seems more conducive than IMO Conventions towards giving a full remedy to the victims of oil pollution.[179]

Differences between two regimes may help to understand why the US refused to ratify the international conventions, and chose a unilateral approach instead.

[177] Wu, C., p233
[178] Kim, I., 2003, p266.
[179] Gauci, G., 1997, p119.

Chapter 9 Economic Analysis

I. Introduction

In previous chapters, the legal history of the international oil pollution compensation regime has been examined, and it was submitted to a comparative study together with the US and the Chinese regimes. As examined before, the international regime on civil liability for marine oil pollution is established by the CLC Convention 1969 and the Fund Convention 1971, which has been modified particularly in 1992, 2000 and 2003. First, the limitation of compensation level has been increased twice in 1992 and 2000, and after the establishment of Supplementary Fund through the 2003 Protocol, the compensation limit has reached almost 1 billion USD. Then the question arises if this figure will be sufficient in all cases as expected by the IMO and the Fund. Second, the scope of compensation has been expanding, in particular with regard to the environmental damage. Third, it was only till recently in the 2003 Protocol that a Supplementary Compensation Fund was established. It came into force only since March 2005 and as of October 2010, 27 States are members of the Supplementary Fund.[1] This amendment has changed the whole scenario of the compensation regime since the original two tier system was broken and the previous balance between the shipping industry and the oil industry was thus changed. The oil industry now as a result of the 2003 Protocol has to contribute to a Supplementary Fund (although on a voluntary basis) in addition to the 1992 Fund, whereas the shipping industry only has to take the liability under the CLC Conventions. Following such a change, voluntary actions were taken by the P&I Clubs to increase the compensation limit of small tankers and reimburse the costs out of the Supplementary Fund.

Despite all the changes, there are some basic elements remain unchanged. These include the strict liability of the shipowner up to certain limit, the compulsory insurance and channelling of liability to the registered shipowner under the CLC, and the existence of compensation fund under the Fund Convention. From the comparative analysis in Chapter 8, it is found that the international, the US and the Chinese oil pollution compensation regimes are different and they have certain implications for practice. In this chapter, with the tool of economic analysis, the efficiency of such system will be examined. That is if such a compensation system is designed to reduce the total social costs of an oil spill incident, and if and to what extent the liability system can give incentives to the parties to take preventive measures and if it is optimal from an economic perspective.

First, the basic economic theory will be sketched, particularly the theories on liability rules. Then the economic theory will be employed to analyze the legal system on liability and compensation for marine oil pollution. In this respect, the principles set up in the Conventions with the most important changes will be critically examined. At last, some conclusions will be drawn from the application of economic analysis.

[1] Information from the website of the IOPC Fund: www.iopcfund.org/facts.htm. Last accessed on 14 October 2010.

II. Theoretical framework

1. Coase theorem

The starting point for any economic analysis, and also for the marine oil pollution compensation regime, is undoubtedly the Coase theorem. The Coase theorem holds that if transactions costs are zero, an efficient use of resources (an optimal allocation of resources) will always follow, no matter what the law says.[2]

One can argue Coase theorem does have relevance in the sense that there is a contractual relationship between the tanker owner who agrees to ship the oil cargo with his tanker on the one hand, and the party representing the cargo interest on the other. In such a contractual setting, parties could in principle *ex ante* agree on the optimal amount of care to be performed, which could be related to the specific preferences of both parties and to e.g. their ability to seek insurance coverage. In that case, the agreement concerning the distribution of risk might also be reflected in the contract price that has to be paid for shipping the oil (the freight).[3]

A result of this reasoning is that in the context of liability for oil pollution damage, it should in theory make no difference whether the liability is allocated to the tanker owner or to the cargo interest. As long as free negotiations (in a low transactions cost setting) are possible, shifting the liability to the tanker owner would simply mean that the price charged for oil transport would be increased. In the alternative, it would be the cargo owner that would bear the liability. In any event, the cargo interest will pass on the costs of liability for oil pollution damage to the end user of the cargo, being those who have a demand for oil related products.

The Coase theorem applies only in the situation where passing on of costs of a tanker owner and the cargo interest is possible and may hence have its importance for the question whether liability should be allocated to one of these parties. In the assumption that the conditions of the Coase theorem are met one could argue that this should in principle not make a difference. Since when transaction costs are zero (therefore the Coase theorem applies), an optimal allocation of resources will always follow, and the tanker owner will bargain with the cargo owner to reach an optimal solution (allocation of liability) that will always be the most efficient. If for example the tanker owner would be liable, he could pass on the price of the expected accident costs in the freight to be paid by the cargo owner. If there were no liability of the tanker owner, the (presumed) well-informed cargo owner will add the expected accident costs to the freight. The decisions therefore remain the same under both liability regimes.[4] However, the allocation of liability may be different if costless passing on of increased liabilities were not possible.

The same conclusion can be reached with respect to the limitation of liability. In the ideal Coasean scenario, from a policy perspective, the limitation of liability should not be too problematic as long as this is (implicitly) agreed between a potential injurer (tanker owner) and a victim within a contractual setting. In the contractual setting, well informed parties may agree to

[2] Coase, R., The Problem of Social Costs, Journal of Law and Economics, 1960, p1-44. The Coase theorem also assumes that markets are able to internalize externalities in an efficient manner.
[3] For an application of the Coase theorem to the issue of product liability, see Oi, W.Y., The Economics of Product Safety, Bell Journal of Economics, 1973, p3-28.
[4] This point has been worked out by Oi with respect to product liability, see Oi, W.Y., 1973, p3-28.

cap liability. The well informed cargo owner would know that the freight does not reflect the accident costs, but may agree to such an allocation, e.g. because both parties consider him to be the superior risk-bearer. In that particular case, there is as such no specific reason for a legislative intervention, to prohibit a cap.

2. Prohibitive transaction costs

2.1 Concept of transaction costs

Transaction costs encompass all impediments to bargaining. These include search costs, bargaining costs and enforcement costs and some others.[5] The search costs are high concerning unique goods or service, while they are low concerning standardized goods or service. Bargaining costs have to do with information costs, number of parties involved, clarity of legal rules and some other elements. Bargaining is simple and easy and hence incurs low costs when information is publicly available, whereas it can be complicated and difficult and high costs when private information is involved. The enforcement costs are low when violations are easily detectible and punishment is cheap to administer. With respect to environmental damage, there is often the problem with long-tail effect of the damage, being the damage that was not easily detectible on a short term. Moreover, with environmental damage often third parties (parites not involved in the bargain) may suffer losses as well, which of course makes the Coase theorem inapplicable.

In reality, the level of transaction costs lie on a spectrum from zero to infinity. There is a threshold level of transaction costs which divides the spectrum into a region where bargaining will work and one where bargaining will not (where Coase theorem works and does not work).

In case of environmental law issues, particularly oil pollution damage infringed by different countries, the application of Coase theorem is more complicated. Even though the Coase theorem was originally designed to apply between private parties, it could also apply to externalities between states.[6] Indeed in theory, the Coase theorem still applies to inter-state situations with transboundary effects where bilateral negotiations are possible. But the transaction costs in such a setting are very high since many countries are involved and it is very rare that international externalities include just two states. Moreover, often strategic behavior due to short term politics (whereas most environmental problems have long-lasting effects) may inhibit efficient bargaining.

2.2 Relevance to the Coase theorem

The Coase theorem applies when passing on of costs is possible. In reality, the victims of oil pollution do not stand in a contractual relationship with the injurer (the tanker owner) and due to legal and practical restrictions the transaction costs are prohibitive. Particularly given the complication of the arrangements in the shipping industry, the passing on of costs may be

[5] Cooter and Ulen,
[6] Cohen, M., Commentary in Eide, E. and Van den Bergh, R. (eds), Law and Economics of the Environment, Oslo, Juridisk Forlag, 1996, p167-171.

confronted with lots of barriers. For instance, many tankers operate under long term charters (up to 20 years). Rate changes involve complex determinations, which may provoke shipper resistance with prolonged investigations, thus making it very difficult for the carrier to pass on his costs. In some legal systems, like e.g. in the US, rates are not directly approved by the Federal Maritime Commission, but they must be filed with that Commission to enable the Commission to enforce anti-trust lawas well as the statutory prohibition on discriminatory rates.[7] In other legal systems, similar or other restrictions on pricing in the shipping industry may apply. Those legal and practical restrictions may lead to prohibitive transaction costs which makes the passing on of costs almost impossible.

Thus the Coase bargaining may not provide a solution. As a result, legal intervention is necessary to remedy the externality resulting from oil pollution damage and to give the parties involved appropriate incentives to follow an optimal care level. A legal rule should thus be put in place to give the tanker owner appropriate incentives to follow an optimal care level. The economic literature on accident law has largely demonstrated that the liability rules may be put in place to serve this goal.[8]

III. Economic analysis of the liability system

1. Economic theory of the liability system

1.1 Basic theory

The economic theory of tort law starts from the belief that the finding of liability will provide incentives for the potential parties to take prevention.[9] There seems to be a difference in stress between the traditional legal approach and the economic approach. The traditional lawyers tend to look at the liabilities and compensation problems where an accident has happened, while economists tend to view the problem from an *ex ante* perspective, being how the *ex post* liability will influence *ex ante* the incentives of potential parties in an accident to take care. Thus, the economic view of tort law stresses the importance of *ex ante* prevention and the deterrent effect of tort law, while on the other hand the traditional lawyer's view is more concerned with *ex post* compensation for the victims of an accident, and hence more focused on victim protection. However, such a difference is not black and white. Some lawyers also stress the importance of due care of the injurer, which also stresses the importance of prevention, and economists may also look at the compensation of victims and stress the importance of equitable loss spreading.

The goal of tort law from an economic perspective is to minimize the social costs of an accident, which include the costs of accident avoidance and the damage caused by an accident when it finally occurs.[10] From a social point of view, accidents do not only incur costs from the moment

[7] Sweeney, J., 1968, p195-200.
[8] For a summary of this literature, see Shavell, S., Economic Analysis of Accident Law, Cambridge, Harvard University Press, 1987; and Shavell, S., Foundations of Economic Analysis of Law, Cambridge, Harvard University Press, 2004, p175-287.
[9] The discussion on the role of liability rules as "engineering instruments", see Monti, A., Environmental Risk: A comparative law and economics approach to liability and insurance, European Review of Private Law, p51-79.
[10] This question was first addressed by Calabresi in 1961 in his paper published in the Yale Law Journal, "Some thoughts on risk distribution and the law of tort". In 1970, Calabresi published the famous book "The Costs of

an accident occurs and harm is suffered. Prevention or precaution may include e.g. the use of safety devices, attention to hazards, and the monitoring of employees by companies.[11] Potential parties in an accident also invest in care taking to avoid the occurrence of an accident. For instance, a firm may invest in water cleaning equipments to avoid potential damage caused to the environment. Such costs are clear and visible. Moreover, the mere fact that a driver has to drive carefully in order not to hit the pedestrian and thus his movement is limited is also considered as a cost by the economists.

In all, liability rules can give incentives for the potential parties of an accident to take preventive measures and minimize the social costs of accidents. Thus, according to economists, tort law has another function, in addition to the traditional view of the lawyers to provide liability for the tortfeasors and to compensate the victims, it also serves to deter the potential injurer from doing harm to the potential victims.[12] It is stressed in the literature that the tort provides prevention incentives thereby avoiding the victimization in the first place, which is considered the best form of victim protection.[13]

The optimal care or efficient care defined in economics is the care level where the marginal cost (MC) of taking care equals marginal benefit of risk reduction (MB). By using the classic cost benefit analysis, such a care level will lead to minimization of the social costs of accidents. Since care taking has its price as well, a legal rule should not give incentives to avoid every possible accident that could occur, but only accidents that could be avoided by investment in care, of which marginal cost is not more than marginal benefit (MC≤MB).

Therefore, an economic model is developed: $C=p(x,y)L + A(x) + B(y)$

C: the sum of expected accident costs and the costs of care
A: the victim
B: the injurer
x: care level of the victim
y: care level
p: probability that an accident will occur
L: magnitude of the loss

It is assumed that both parties are risk neutral, the magnitude of the loss (L) is independent of the level of care, more care will reduce the probability of an accident (p) and only the victim (A) suffers a loss.

Accidents". In this book, he makes a distinction between the primary, secondary and tertiary costs of accidents. The primary costs are the costs of accident avoidance and the damage that actually occurs, the secondary costs refer to the equitable loss spreading, and the tertiary costs are the costs of administering the legal regime. However, in this thesis, the social cost is simplified to be the primary cost referred to by Calabresi, see Calabresi, G., The Cost of Accidents, 1970.

[11] Polinsky, M. and Shavell, S., Punitive Damages, in: Palgrave Dictionary of Economics and Law, Macmillan Reference Limited, London, 1998, Volume III, p192.

[12] The deterrent effect and victim protection of the tort law has been widely discussed in law and economics literature. See particular, Schwartz, G., Mixed Theories of Tort Law: Affirming both Deterrence and Corrective Justice, Texas Law Review, 1997, Vol. 75, p1801- 1834. Schwartz showed that the tort law rules may serve both the aims of deterrence and corrective justice.

[13] Faure, M. (ed.), Deterrence, Insurability and Compensation in Environmental Liability, Future Developments in the European Union, European Centre of Tort and Insurance Law (ECTIL), Springer, 2003, p19.

In order to minimize the social costs (C), the level of care must be set at x=x* for the victim and y=y* for the injurer. At these efficient levels, the MB from an increase in care equals the MC of greater care. From an economic point of view, optimal care is not equal to the highest care possible. The highest care might lead to spillage, since the MC>MB. The difficulty is then to find the efficient level of care x* and y*.

1.2 Activity level

Not only the prevention level can influence the accident risks, the activity level may also influence the risks.[14] The activity level is the extent to which parties participate in the activity which might cause the damage. To reduce the activity level may reduce the accident risks. For instance, if a driver drives less distance, his risks of causing an accident might be reduced. According to the economic theory, an efficient liability rule should not only give incentives to take optimal preventions, but also to carry out the activity at an optimal activity level as well.

1.3 Unilateral v. bilateral accident

1.3.1 Unilateral accident

The economic literature makes a distinction between a unilateral and a bilateral accident. A unilateral accident is a situation where only one party (usually referred to as the injurer) can influence the accident risk, and a bilateral accident is the one that both parties can influence the accident risk.

In a unilateral accident only the injurer is in the position to take prevention, while the victim is not. Hence, if one wants to examine which liability rule can lead to an efficient result, the prevention level and activity level[15] taken by the injurer shall be examined.

As for the care level, first, when there is no liability, clearly the injurer will have no incentive to take prevention. Hence, it will lead to an inefficient result and the externality will not be internalized.

A strict liability means no matter what level of care he takes, as soon as there is damage, the injurer will always have to pay compensation. Hence, one may argue that it will lead to the situation where the injurer either takes excessive care or takes no care at all since he will be held liable anyway. However, this will not happen. The strict liability by making the injurer strictly liable actually shifts the decision to the injurer. It means he has to bear the social costs of an accident. Therefore, as a rational individual, the injurer will minimize the total expected accident costs. And the economic theory mentioned above observes that the total social costs of an

[14] The cumulative oil spill data in the US waters indicate that the number and volume of oil spills have a close relationship with waterborne oil movements. See Kim, I., 2002, p197.

[15] The activity level refers to the number of times a potential injurer engages in a harmful activity. For oil pollution, one could argue that the oil pollution risk is also determined by the amount of nautical miles navigated by a particular tanker owner. Adopting an optimal activity level (reducing the oil transportation activity by sea) is also a way to reduce the risk of oil spills. See generally on the importance of adopting an optimal activity level, Shavell S., Strict liability v. Negligence, Journal of Legal Studies, 1980, p1-25.

accident are minimized when the prevention level is optimal. Hence, the care level taken by the injurer will be optimal. Taking more care will increase his costs of care-taking inefficiently and taking less care will increase the expected damage inefficiently.

When negligence liability is adopted, the injurer will take optimal prevention, provided that the due care level established under the legal rules is optimal. This can be easily understood. When the judicial system sets certain care level, under the negligence rule, the injurer can avoid liability by adopting the care level required by the legal rules. Hence, when the legal rules set due care standard properly, the injurer will take optimal care under a negligence rule. It might be argued that the injurer could take more care than required by the legal system, but he would not do so since he could already escape liability by taking the care level equals to the level required by law. On the other hand, one might argue that the injurer could spend less care, but then he will have to pay compensation for the damage he causes. In this situation, the social costs of the accident will be higher than when he takes optimal care. Hence, he will have no incentive to take less care either. Therefore, a negligence rule can lead to efficient care level of the injurer as well.[16]

Hence, the conclusion can be reached that in a unilateral accident, both strict and negligence liability can lead to optimal care level.

As for the activity level, under strict liability, the injurer will adopt automatically an optimal activity level. Under a negligence rule, the injurer will not adopt optimal activity level since he could avoid liability by adopting an efficient care level, hence he will have no incentive to adopt an optimal activity level at the same time. Moreover, this presumes that the care level established by legal rules is efficient. However, activity level is the factor that is not taken into account when the legal rules set optimal care level.

Therefore, an optimal liability rule in a unilateral accident is strict liability as it can lead to both efficient care level and activity level.

Hereunder is a table analyzing the liability rules in a unilateral accident:

Liability rules	Care level of the injurer	Activity level of the injurer
No liability	X	X
Strict liability	Y	Y
Negligence	Y	X

Note: X means the care or activity level is sub-optimal, Y means the care or activity level is optimal.

1.3.2 Bilateral accident

[16] The economic model assumes an accurate assessment of the care level by the injurer and the judge, and hence the absence of errors. See on the influence of errors on the determination of negligence, Shavell, S., Economic Analysis of Accident Law, Cambridge Harvard University Press, 1987.

The analysis is more refined in a bilateral accident. As for the prevention level, when there is no liability, the injurer will obviously not take any prevention, the victim on the other hand will take prevention. However, this is not efficient in the sense the injurer is also in the position to take preventive measures, but he is not given any incentive to do so.

When there is strict liability, the injurer will take optimal care to avoid his potential liability (for similar reasons mentioned in the unilateral accident setting), but the victim will not take prevention since he will be fully compensated anyway if an accident occurs. Hence this does not lead to an efficient result.

When there is negligence rule, the care level taken by the injurer will be up to the care level decided by the legal rules (provided that the care level established under the legal rules is optimal). Hence, when the injurer takes optimal care, if an accident occurs, the victim will have to bear the damage. In order to avoid the damage, the victim will take care up to the optimal level. Therefore, a negligence rule in a bilateral accident leads to an efficient solution.

Contributory negligence excludes the right of compensation for the victim who did not take due care. Under comparative negligence, the victim's right to compensation will be proportionally reduced if the victim is negligent. As the previous analysis has shown, under strict liability, the injurer will take optimal care and this does not change when a defence is added. By adding a contributory negligence defence, under the condition that such a care level required by the law is optimal, in order to avoid the situation that he will not receive compensation or receive full compensation, the victim will take optimal care as well. Therefore, when strict liability is combined with contributory or comparative negligence defence, strict liability will give injurer incentive to take prevention, and the contributory and comparative negligence defense will give additional incentives for the victims to take optimal prevention. Hence, they are efficient in this respect.

Therefore, in a bilateral accident, both negligence rule and strict liability with contributory or comparative negligence defence can lead to efficient care level.

As for the activity level, the problem in a bilateral accident is e.g the strict liability may give the injurer incentives to take optimal activity level, but this advantage is cancelled out by the fact that the victim will not adopt an optimal activity level.

In a negligence rule, the result is also not optimal in the sense that the activity level is not calculated in setting the optimal care level, hence, the injurer will not adopt an optimal activity level, although the victim has incentive to do so.

Therefore, the conclusion in a bilateral accident is that no liability rule is optimal in the sense neither of them can lead to both efficient care level and efficient activity level at the same time.

The table below shows the care and activity level under different liability rules:

Liability rules	Care level Injurer	Activity level Injurer	Care level Victim	Activity level Victim
Strict	Y	Y	X	X
Negligence	Y	X	Y	Y
Strict + contributory negligence	Y	Y	Y	X
Strict + comparative negligence	Y	Y	Y	X

1.4 Test for strict liability

According to the economic theory, in a unilateral accident, only strict liability is optimal in the sense that both negligence and strict liability can lead to efficient care level, but only strict liability leads to an efficient activity level of the injurer as well.[17] However, in a bilateral accident, it is more complicated when the victim's influence on the accident risk is taken into account as well. In that case no liability rule is optimal. A strict liability (with a defense) will encourage the activity level change on the part of the injurer, and a negligence rule will encourage the activity level change of the victim.[18] The result is that one should examine whether it is more important to control the injurer's activity or the victim's. If it can be held that the injurer's influence on the activity is far more important than the victim's, this may be an argument in favor of strict liability.[19] This implies that the injurer's activity is very dangerous and creates a high accident risk. Even if optimal care is taken, it will be more desirable to control the injurer's activity than the victim's. This is the case of most environmental harm, for instance, the case of marine oil pollution.

1.5 Legal justification for strict liability: improving the situation of the victim?

One legal justification often advanced in favor of strict liability is that strict liability will help the victim to obtain compensation since he is released from the heavy burden of proving fault under the negligence rule. But from an economic point of view, victim compensation is not as such a goal of tort law. The duty of the injurer to compensate the victim is an instrument to reach deterrence efficiency, and to minimize secondary injury costs by loss spreading.[20]

This argument is particularly advanced in the area of environmental law. It is often argued that a strict liability for environmental damage is in the interest of victim compensation. However, this is not so convincing in all cases. Indeed, in many legal systems, violation of a statutory or

[17] See Shavell, S., Strict Liability versus Negligence, Journal of Legal Studies, 1980, p1-25; for a summary Hansbernd Schäfer and Schönenberger, A., Strict Liability versus Negligence, in: Bouckaert, B. and De Geest, G. (eds), Encyclopaedia of Law and Economics II Civil Law and Economics, 2000, p597-624.
[18] See on this issue also Shavell, S., 2004, p182-193.
[19] See for a test for strict liability the classic contribution by Landes, W. and Posner, R., The Positive Economic Theory of Tort Law, Georgia Law Review, 1981, p877-907.
[20] The need to minimize secondary costs has been stressed in the work of Calabresi, G., The Costs of Accidents: A Legal and Economic Analysis, New Haven and Yale University Press, 1970, p17-18.

regulatory norm is qualified as a civil fault. Most industries are subject to extensive safety regulation. Hence, in these systems the victim only has to prove the violation of one of these regulations to establish a fault or negligence. If the victim can in addition also prove a causal relationship with the loss suffered, he will be able to claim compensation. In many accident cases, this burden of proof will not be as heavy as has been argued. It is therefore at least questionable if a strict liability rule substantially improves the situation of the victim in comparison with an already existing broadly interpreted civil negligence system. It should also not be overlooked that under the general negligence rule of tort law, no limitations apply and the victim is entitled to full compensation. In many of the environmental cases where strict liability was first introduced, more particularly in the international conventions concerning nuclear accidents and oil pollution, financial caps and other limitations on the victim's right were introduced. The alleged compensating benefit of the strict liability in the environmental cases is therefore doubtful.

1.6 Redistribution issue

A distinction should be made between the efficiency as defined in Shavell's economic analysis and distribution issues. So far the focus of the analysis was on the efficiency arguments which show that in particular cases there might be an argument in favor of strict liability. It should be remembered that these arguments in favor of strict liability for hazardous activities are only based on the fact that the injurer would then be in a better position to prevent the harm. Obviously arguments in favor of strict liability can also be based on distributional differences.

An important difference between strict liability and negligence rule is that if the negligence rule works perfectly, the injurer will take the care required by the legal system and will therefore not be held liable. A perfectly working negligence rule will give optimal incentives to the injurer, but not provide compensation to the victim. A strict liability will always provide compensation to the victim.

It is because of this distributional difference that many lawyers favor the strict liability. Remember, however, from an economic perspective in bilateral accidents, strict liability is efficient only if a defence is added to give the victim incentives as well for effective prevention.

2. Application to the marine oil pollution compensation regime

2.1 Theoretical framework

Applying these basic economic insights of accident law to the case of oil pollution damage, one can hold that there may be a strong economic argument in favor of a strict liability rule. Oil pollution damage is certainly not purely unilateral. Also victims (like e.g. coastal states) may be able to take preventive measures once an oil pollution incident has occurred. However, the influence on the accident risk of the tanker owner seems to be far more important than that of the victim. Hence, according to the economic test, it seems far more important to control the injurer's activity than the victims, which may create a preference for strict liability.[21] A condition is, as indicated, that the victim's care level would be controlled by adding a

[21] See Shavell, S., 2004, p188-189.

(comparative or contributory negligence) defense to the strict liability rule.

2.2 Analysis of the CLC

The CLC, both in its 1969 and its 1992 version impose a strict liability rule for damage caused by oil pollution. In this respect our economic analysis can be brief: above it is already indicated that the economic literature on accident law proposes a strict liability rule for these situations where the injurers on the accident risk is more important than the victims. This choice therefore seems to correspond with the economic literature. It is interesting to note that both during the preparation of the original CLC and in the early literature justifications for the strict liability were given that correspond largely with the economic reasoning. It was more particularly the French delegation that pushed strongly in favor of strict liability. It held that the liability should be fixed according to a "simple, efficient and economic system".[22] Goldie equally argued that strict liability for catastrophic damage to third parties should be imposed since otherwise an enterprise might be able to shift social costs from the enterprise to society[23] and Wood explicitly referred to the need to internalize the social costs of marine oil transportation as justification for the (strict) liability regime: "Full liability for oil pollution damage is necessary to deter unnecessarily dangerous or negligent conduct and to encourage a socially optimal level of precautions for the petroleum industry".[24]

Moreover it should be added that from Article III (2) of the CLC it follows that there is no liability for pollution damage in case of force majeure or in case of an intentional act of a third party. The exclusion of liability in case of force majeure of course makes sense since the economic analysis assumes that liability will provide incentives to increase the level of precaution. Hence, attaching liability also in the situation where the tanker owner could not influence the accident risk and could therefore not have affected his incentives does not make sense from an economic perspective. One may argue that the activity level of the tanker owner may go down, however, he will not take any preventive measures in such a case.

It is equally important to stress that Article III (3) of the CLC provides that if the pollution resulted wholly or partially from a (negligent or intentional) act or omission of the victim the tanker owner will be exonerated wholly or partially from liability. Hence, the required defence is added to the strict liability rule to provide the victim incentives to take care as well. Also this corresponds with the economic principles sketched above.

2.3 OPA and China

Similar analysis can be applied to OPA and China, which equally imposes strict liability on the shipowner. In this respect, the analysis can be simple: the strict liability on the shipowner can be

[22] However, it was not only for deterrence reasons that strict liability was proposed. The French delegation equally argued that strict liability would be the only guarantee for an optimal compensation. See OR 1969, Documents LEG/CONF/C.2/SR3 – 13, IMO, p625 – 689.
[23] See Goldie, L.F.E., Liability for Oil Pollution Disasters: International Law and the Limitation of Competences in a Federal Policy, Journal of Maritime Law and Commerce, 1975, p310.
[24] See Wood, L., 1975, p23-24.

considered efficient since it is more important to control the injurer's incentive than the victim's.

Section 2703 (b) of OPA provides for a comparative negligence defence to take into account the incentives of the injurer. Therefore, strict liability combined with comparative or contributory negligence defence is justified from economic perspective for marine oil pollution compensation regime.

3. Information differences

One important difference between strict liability and negligence rule is that information costs in these two regimes are different. Under negligence rule, the information costs are high from the judge, who has to set due care standards. The information for the judge to weigh costs and benefits and to fix the optimal care may not be readily available. Strict liability shifts all the costs to the injurer, who will then have to define the optimal care level.

If one assumes that as may be the case with environmental damage (such as marine pollution damage), the information on optimal prevention is better available with industry than with the judge, this constitutes an argument for strict liability. On the other hand, in some cases, there is an information advantage with the regulator, and this might be an argument in favor of regulation, but not necessarily an argument against strict liability.

4. Insolvency problem

So far the analysis is based on the assumption that the injurer is solvent, being he has assets at stake to pay for the compensation to the victims. However, it might happen that the amount of damage exceeds the injurer's wealth, as is often the case of oil pollution damage.

Under strict liability, the injurer will consider the risk as one where he could at most lose his assets and will set his care level according to the amount of his assets, which is lower than the optimal care level required by the actual damage he could cause. Thus, insolvency risk may lead to underdeterrence.

On the other hand, insolvency seems less problematic under negligence rule. Under negligence rule, the injurer always has incentive to take the care required by the legal system as long as the costs of taking care are less than his individual wealth. Taking due care remains the way in which the injurer could avoid paying compensation to the victim. Thus, the economic literature has indicated that under negligence rule underdeterrence will only arise when the costs of taking efficient care are higher than the injurer's wealth, whereas under strict liability underdeterrence already arises as soon as the magnitude of the damageis higher than the injurer's wealth.[25] This means that this economic advantage of strict liability holds only in the hypotheses of full solvency of the injurer. If the injurer (the tanker owner in the case of oil pollution damage) were judgment-proof[26] a regulatory solution has to take care of the danger of underdeterrence

[25] See on these underdeterrence effects of strict liability Landes, W. and Posner, R., Tort Law as a Regulatory Regime for Catastrophic Personal Injuries, Journal of Legal Studies, 1984, p417-434.

[26] A party is said to be judgment-proof if he avoids the full degree of liability he should rightly face. For further discussion on judgment-proof problem, see Pitchford, R., Judgment-proofness, in; Palgrave Dictionary of Economics and Law, Macmillan Reference Limited, London, 1998, Volume II, p380-383.

resulting from insolvency.[27]

In addition to the effect of under-deterrence, limited solvency of the injurer also leads to excessive engagement in the risky activity.[28] Since some of the cost of an accident is externalized due to the restricted solvency of the injurer, more individuals at a given level of wealth will be induced to engage in the activity relative to the optimum. A result is that the activity could be dominated by low wealth injurers through self-selection, which leads to further reduction in care level.[29] This may explain why the use of single-ship company has become so popular in the maritime practice. It also leads to the question if and how to expose the creditor to liability who has large resource to cover the damage. This will be discussed further below in the subsection on lender liability.

IV. Economic analysis of financial caps

1. Theoretical framework

1.1 Contract situation

One important feature of the international oil pollution liability system is that the tanker owner is not exposed to full liability, but that his liability is capped to a certain amount. How can one view these financial caps from an economic perspective?[30]

First, a distinction is made in the economic literature between the situation where the victim stands in a contractual relationship with the injurer and the one where the victim is a third party. As indicated above discussing the Coase theorem, in a contractual setting parties could in principle ex ante agree on the optimal amount of care to be performed, which could be related to the specific preferences of both parties and to e.g. their ability to seek insurance coverage. In that case the agreement concerning the distribution of risk might also be reflected in the contract price that has to be paid for shipping the oil (the freight). Hence, financial caps on liability can still be considered efficient in the contractual setting. In that case they could simply signal the division of risk bearing between e.g. the cargo owner and the tanker owner. A limited liability will be reflected in the transport price (freight). In this particular contractual setting, where informed parties agree to cap liability, this should not cause major worries from a policy perspective.

This corresponds nicely with the traditional justification advanced in maritime law in favor of the limitation of liability (see the discussion in Chapter 4 on the legal history for limitation of liability) whereby the cap is considered as striking a balance between the interest of the cargo owners and the shipping industry.

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[27] So also Shavell, S., The Judgment Proof Problem, International Review of Law and Economics, 1986, p43-58.
[28] In this respect, see equally, Shavell, S., 1986, p43-58.
[29] Pitchford, R., Judgment-proofness, in; Palgrave Dictionary of Economics and Law, Macmillan Reference Limited, London, 1998, Volume II, p381.
[30] For an economic analysis of financial caps see Faure, M., Fenn, P. and MacMinn, R., Economic Analysis of Financial Caps in Accident Law, paper presented at the annual conference of the European Association of Law and Economics in Ghent, September 2000.

The cap of liability in the contract setting, moreover, has the advantage that the potential victim could, depending upon his preferences and attitude to risk, purchase individualized insurance coverage. A generalized unlimited liability of the shipowner could lead to a general increase of shipping prices also for those potential victims who do not wish this additional protection. It is a classic argument in the economic analysis of law against strict liability in these situations where increased liabilities can be passed on: prices may be increased for all whereas only some (high risk) individuals may benefit from this increased protection. An efficiency loss and a negative redistribution may be the result.[31]

1.2 Third party losses

1.2.1 Unilateral accident

The situation is different when, like in the case of oil pollution damage, victims are third parties and hence the Coase solution cannot apply. In that case transaction costs are prohibitive and hence Coasean bargaining may not provide a solution. This is when liability is introduced to remedy the externality resulting from oil pollution damage.

As mentioned before, a difference can be made between a unilateral accident and a bilateral accident. In a unilateral accident, the full internalization of externalities is possible only when the injurer is effectively exposed to the full costs of the activity he engages in and should therefore in principle be held to provide full compensation to a victim. An obvious disadvantage of financial caps is that this will impair the victim's rights to full compensation. If the cap is set at a much lower amount than the expected damage, this would not only violate the victim's right on compensation, but the above mentioned full internalization of the externality would not take place either. From an economic point of view a limitation of compensation therefore poses a serious problem since there will be no internalization of the risky activity.

Indeed, if one believes that the exposure to liability has a deterrent effect, a limitation of the amount of compensation due to victims poses another problem. There is a direct relationship between the magnitude of the accident risk and the amount to be spent on optimal care by the potential polluter. If the liability therefore is limited to a certain amount, the potential injurer will consider the accident as one with a magnitude capped at the limited amount. Hence, he will not spend the care necessary to reduce the total accident costs. Obviously, the amount of care spent by the potential injurer will be lower and a problem of underdeterrence will arise. The amount of optimal care, reflected in the optimal standard, being the care necessary to reduce the total accident costs efficiently, will be higher than the amount the potential injurer will spend to avoid an accident equal to the statutory limited amount.[32]

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[31] This point was made by Bishop, W., The Contract – Tort Boundary and the Economics of Insurance, Journal of Legal Studies, 1983, Vol. 12, 241-266; Epstein, R.A., Product Liability as an Insurance Market, Journal of Legal Studies, 1985, Vol. 14, 645-669 and Rea, S., Non-Pecuniary loss and breach of contract, Journal of Legal Studies, 1982, Vol. 11, 50-52. See also Priest, G, The current insurance crisis and modern tort law, Yale Law Journal, 1987, 1521-1590. For an application to compensation for non pecuniary losses see Faure, M., Compensation of Non-Pecuniary Loss: An Economic Perspective, in: Magnus, U. and Spier, J. (eds.), European Tort Law, Liber Amicorum for Helmut Koziol, Frankfurt am Main, Peter Lang, 2000, p143-159.

[32] See Faure, M., Economic Models of Compensation for Damages caused by Nuclear Accidents: Some Lessons for the Division of the Paris and Vienna Conventions, European Journal of Law and Economics, 1995, p21-43.

1.2.2 Bilateral accident

The picture, however, changes in the bilateral accident situation when account is taken of the victim's influence on the accident risk as well. It is often stressed in the economic literature that whenever the victim can have its influence on the care level as well, a liability regime should be chosen that provides incentives to the victim for taking optimal care as well. This may either be a negligence rule or a defence which has to be added to the strict liability rule (comparative or contributory negligence).[33]

This difference between the unilateral and the bilateral accident may also have its importance for an economic evaluation of financial caps. In a unilateral accident, a full exposure of the injurer to the costs of his activity is necessary in order to fully internalize the costs caused by oil pollution damage. Whereas in a bilateral accident, the economic literature argues against providing full compensation to victims since victims can take precautionary measures which are not always observable by judges and which can therefore not be fully accounted for in contributory or comparative negligence defences.[34] A limit on the compensation in case of bilateral accidents may therefore be useful in cases where victims should be given additional incentives to reduce the accident risk.

In such a case, whether caps are efficient in specific bilateral accident cases will depend on the circumstances. The question arises - *inter alia* - whether exposing the victim to risk is indeed necessary to provide these additional incentives or whether the victim's incentives can be optimally controlled via the contributory negligence defence. Also the amount of the cap remains important. If the cap were set too low this would give incentives to the victim but it could equally lead to serious underdeterrence of the injurer.

2. Application to oil pollution

2.1 Analysis of financial caps

2.1.1 Under-compensation

It is shown in the economic theory that financial caps in maritime law may be justified in a contractual setting, but may be subject to certain conditions when the victim is third party. The oil pollution damage is mostly sustained by coastal states that do not stand in a contractual relationship with the tanker owner whose vessel has caused the pollution damage. Despite some objections from the economic perspective, financial caps are nevertheless introduced in the oil pollution compensation system. Therefore it might be interesting to examine the potential effects

[33] The literature distinguishes between a contributory negligence defence, meaning that the victims loses his right to compensation if he took less than the required due care to the victim. In case of a comparative negligence, the right is only proportionally reduced to the amount of his contribution to the accident risk. Both defenses are considered efficient, since in both cases the contribution of the victim to the accident risk is taken in to account and the victim's claim on damages will be reduced wholly (contributory) or partially (comparative negligence). For a discussion of the difference between both rules see e.g. Haddock, D. and Curran, C., An economic theory of comparative negligence, Journal of Legal Studies, 1985, p49-73.

[34] This point has been made by Rea, S., Non-pecuniary Loss and Breach of Contract, Journal of Legal Studies, 1982, p50-52.

of the financial caps on liability system for oil pollution damage.

The previous analysis indicated that in the case of oil pollution damage where victim is third party, in large scale oil spill cases, financial caps on the liability of the injurer will lead to under-compensation of the victim. This problem of under-compensation can easily be shown by referring to the historical evolution in Chapter 4. Every time a new incident with higher damage occurred the limits were again increased since the then existing limits apparently did not suffice to provide compensation to accident victims.[35] In his thesis Julien Hay provides an overview of the amounts of damage caused by the largest tanker incidents in recent history. [36]

Table: Comparison of available compensation and pollution damage of some major incidents

Tanker of incident	Year of incident	Available compensation (million Euro)	Damage caused (million Euro)
Tanio	1980	37.2	53.1
Haven	1991	53	60.7
Aegean Sea	1992	44.5	80.6
Braer	1993	60.9	62.5
Nakhodka	1997	215.4	236.6
Erika	1999	184.8	388.9
Prestige	2002	171.5	1050
Hebei Spirit	2007	213.5	Between 359.8 and 383.1

Given the amounts available at the time, the damage caused by these incidents as mentioned in the table could not be fully compensated. It is interesting to note that only after the incident of Hebei Spirit, the Republic of Korea decided to join the Supplementary Fund Protocol. Indeed, through the entry into force of the Supplementary Fund Protocol on 3 March 2005, an amount is available of around 1,114 million US Dollars. Hence, this may suffice to compensate today even most of the large oil spill incidents. However, history has shown that in the case of every new large incident the damage again was larger.[37] It can therefore not be excluded that, notwithstanding all the recent changes, the international regime will yet be insufficient to provide full compensation in all cases.

2.1.2 Underdeterrence

The economic literature showed that a strict liability rule is efficient only if the potential

[35] For a critical analysis see Sachs, N., Beyond the Liability Wall: Strengthening Tort Remedies International Environmental Law, University of California Los Angeles Law Review, Vol.55, 2008, p837-904.

[36] The figures for estimated damage caused in the top five incidents are taken from the doctoral dissertation of Hay, see Hay, J., Analyse Economique du Système International CLC/FIPOL comme Instrument de Prévention des Marées Noires, Thèse de Doctorat, Université de Bretagne Occidentale, 19 September 2006, p125. The amounts for the last three incidents are from the website of the IOPC Fund, www.iopcfund.org. For reasons of simplicity and comparability, all the amounts have all been transformed to Euros. The exchange rates used are the rates on the day when these figures were released.

[37] Also due to the refinement of clean up techniques and the related increase of costs. See the findings of Hendrickx, R., Maritime Oil Pollution: An Empirical Analysis, in: Faure, M. and Verheij, A. (eds.), Shifts in Compensation for Environmental Damage, Vienna, Springer, 2007, p243-260.

tortfeasor is fully exposed to the potential damage which may result from his activity. A financial limit on the (strict) liability of the tanker owner will have the same effect as the insolvency of the tanker owner: under-deterrence.

There is a direct relationship between the magnitude of the accident risk and the amount to be spent on optimal care by the potential polluter. If the liability is limited to a certain amount, the tanker owner will consider the accident only as one where the limited amount of liability is the maximum damage that can be suffered and a corresponding (lower) level of preventive measures will be chosen. The amount of optimal care, reflected in the optimal standard, being the care necessary to reduce the total accident costs efficiently, will be higher than the amount the potential injurer will spend to avoid an accident equal to the statutory limited amount.[38] Hence, a problem of underdeterrence will arise. In this respect, a financial cap on liability can be considered inefficient, more particularly since it concerns here a situation where damage is suffered by third parties so that Coasean bargaining is not possible.

Several scholars have applied these insights to the domain of nuclear liability where tight limits on liability are in place both in international conventions and in national legislation. It has been argued that these caps inefficiently dampen the operator's incentives to take precautions.[39]

2.1.3 Subsidy

Another effect of the limitation of liability, described in economic literature, is that a financial cap will function as a subsidy. The tanker owner not being fully exposed to the costs of oil pollution damage in fact receives a financial advantage through the financial cap. This subsidy is primarily to the benefit of the shipping industry since the cap will most likely result in lower insurance coverage costs. In theory , these costs can be passed on to the cargo interests the oil industry will benefit from this subsidy as well. However, a part of the subsidy that benefits the oil industry is countered by the fact that the oil industry contributes to the International Oil Pollution Compensation Fund (referred to as the IOPC Fund, or the Fund). Oil receivers finance this fund by levies on the oil transported. Therefore, such a subsidized system is to the disadvantage of the victims to the extent that their damage is not always fully compensated under the international regime (the CLC and the Fund), but only up to the capped amount as provided in the international regime. Indeed, the victims' situation is improved with the increased liability limits in the 1992 Protocols and the later 2000 Protocols, which means that their maximum amount of compensation is also increased. Nevertheless, the existence of such a mechanism, known as a liability limit or financial cap means that there is always a chance the damage exceeds the liability limit. In that case, the victims' right to full compensation is endangered even if this may only happen in exceptional cases.

In the early days of shipping the caps were needed as a stimulant for investment in shipping due to its highly risky nature, but this justification originated in ancient time may not sustain in

[38] See Faure, M., 1995, p21-43.
[39] See Faure, M. and Van den Bergh, R., Liability for Nuclear Accidents in Belgium from an Interest Group Perspective, International Review of Law and Economics, 1990, p241; Trebilcock, M. and Winter, R., The Economics of Nuclear Accident Law, International Review of Law and Economics, 1997, p215-243.

modern society due to the fast development of all kinds of technology which contributes to reduce the risks of shipping activity. Moreover, the widespread use of insurance particularly third party liability insurance could considerably reduce such risks.[40]

One of the distorting aspects of the subsidy constituted by the financial cap is *inter alia* the fact that the price of oil will be relatively too cheap. Relative in this respect means that the price of oil does not reflect correctly social costs and will therefore be relatively cheap, compared to other alternatives that would (by hypothesis) fully internalize social costs. The price of oil will also be too low relative to other alternative energy resources, which may in turn add to the overconsumption of oil resources.[41] However, the study by Smets shows that the nominal influence of even a serious increase of the compensation due on oil prices would be minimal. This can also be supported by the fact that since the entry into force of the Supplementary Fund in 2005 an even larger amount of total compensation is available through the Supplementary Fund of almost one billion dollar. Although oil prices have significantly increased since then it may be clear that this is rather due to developments on the international market than to this legislative change. Even though therefore the nominal influence of abolishing the financial cap (or seriously increasing the limits) may be very small (and with that also the market distortive effects) this can at the same time be used as an argument to hold that the financial caps today are not justified any longer. It would apparently not have a devastating effect on the industry concerned.

An additional aspect of the subsidy effect of the financial caps is that it may encourage overinvestment in the risky activity such as oil transportation by sea. Since the liability costs relating to the risky activity are not fully internalized due to the system of financial caps, investors might (wrongly) consider that the activity has positive value and thus attractive for investment. Therefore, financial caps may lead to excessive entry and overinvestment in risky activity.[42]

2.2 Analysis of unlimited liability

Since the economic arguments point at the inefficiency of the limited liability in the case of oil pollution, one may think of a solution to remove such inefficiency is to abolish limited liability and adopt unlimited liability instead. However, whether all the problems posed by financial caps can be remedied through the use of unlimited liability needs further analysis.

In theory when the injurer is exposed to full liability (as is the case under unlimited liability) and hence required to pay full compensation to the pollution victims, he will have incentive to take prevention up to the full costs of his activity. Thus, the inefficient effects of limited liability such as undercompensation and underdeterrence can be avoided. The price of oil product should now reflect the total social costs of the activity, thus the subsidy constituted by the financial caps does

[40] Gauci, G., Limitation of Liability in Maritime Law: An Anachronism? Marine Policy, Vol.19, No.1, 1995, p66.
[41] Wood, L., 1975, p23-29. However, it should also be recognized that the subsidy of other energy resources may exist as well. In this respect, the overconsumption of oil energy may be counter-balanced to certain extent.
[42] Kraakman, R., Unlimited Shareholder Liability, in: Palgrave Dictionary of Economics and Law, Macmillan Reference Limited, London, 1998, Volume III, p648-654.

not exist under unlimited liability.

Moreover, some opportunistic behavior in shipping activity such as the use of single-ship company can be discouraged if unlimited liability is adopted. As mentioned in Chapter 2, one common practice in shipping is to establish single-ship companies to evade liability. The limited liability precisely encourages such phenomenon. The provisions in the CLC relates the liability of the shipowner to the tonnage of his ships, by creating separate legal entities for every single ship, the liability of the shipowner is effectively divided into small fractions. Hence, the financial caps as provided in the CLC may encourage opportunistic behaviour of the shipowning companies. Indeed, the establishment of the small-size undercapitalized corporation is used as an instrument to externalize the liability costs.[43] However, under unlimited liability, the shipowner will have no incentive to do so since he anyway has to bear full liability for the damage his vessel has caused.

One often used argument against unlimited liability is that abolishing the financial limit on liability would lead to an increase in oil prices. However, some empirical study shows that such a financial impact seems relatively small. Smets analyzed in 1983 what the effects would be of an increase of the available amount of compensation by $250,000,000 (compared to the limit of $ 52,000,000 available at that time).[44] Smets argues that the economic effects of such an increase would be limited as large oil spills are rare events compared with the total number of oil spills. He calculated that the economic impact of the mentioned increase would be less than $0.055 per ton transported and would thus be insignificant. The same conclusion was reached by the European Commission in the Erika proposals.

However, despite the advantages of unlimited liability, no country is willing to abolish the limited liability on shipowner. Most countries are probably afraid that exposing their shipping industries to full liability might render them in a competitive disadvantage position.[45] This might explain the long survival of the mechanism of financial caps in maritime law despite some inefficiencies related to this system.

Moreover, whether the unlimited liability can actually lead to full compensation of the victims in practice depends to a large extent on the solvency of the injurer. Where there is no guarantee of solvency, an unlimited liability will not induce more incentive towards optimal care than the limited liability. Under the current international regime, the shipowner is required to take out liability insurance, however, so far the insurance amount is only up to the financial limits as provided in the international conventions. Moreover, given the fact that limited liability has become a universal feature of corporations, a company may nevertheless benefit from limited liability through the devices of corporate law, although the limited liability of corporations towards involuntary creditors (in the sense the liability arises from tort related actions) is

[43] Ringleb, A.H. and Wiggins, S.N., Liability and Large-scale, Long-term Hazards, Journal of Political Economy, 1990, Vol.98, p574-595.
[44] Smets, H., The Oil Spill Risk: Economic Assessment and Compensation Limit, Journal of Maritime Law and Commerce, Vol.14, 1983, p31-43.
[45] Rein, A., International Variations on Concepts of Limitation of Liability, Tulane Law Review, 1979, p1259; also Allen, C. Limitation of Liability, Journal of Maritime Law and Commerce, 2000, p263.

confronted with similar critiques in the economic literature.[46] Hence, from a theoretical point of view, unlimited liability has certain advantages over limited liability, but without the guarantee of solvency, it will not be able to cure the inefficiency posed by limits on liability.

2.3 Financial caps in the CLC

From the economic analysis of financial caps for oil pollution damage presented above, it follows that there seems to be no justification for the introduction of financial caps for oil pollution damage where third parties are the victims.

A possible justification for the cap could be found in the situation where one would argue that the comparative negligence defence (just mentioned) would not provide adequate incentives to victims (more particularly the coastal states suffering the oil pollution damage). In that case one could argue that lower than full compensation for the victims may provide additional incentives for victim care. However, given the fact that it is more important to control the injurer's incentives than the victims and considering the fact that the CLC does provide for a comparative negligence defence there is no reason to assume that this defence cannot adequately provide incentives for care to the victims of oil pollution damage. Moreover, the positive effects of a cap may have on victim's incentives would probably be totally countered by the negative effects this would have on the tanker owners incentives for prevention.

The fact that, financial limit on liability as contained in the CLC has certain inefficient aspects does, however, not necessarily mean that the cap will in practice also lead to a higher level of oil pollution incidents. First, for many (smaller) oil pollution incidents, the damage may well be lower than the limit on liability. The risk of underdeterrence may therefore only arise in those (catastrophic) cases where the amount of the damage actually was higher than the cap. Second, the prevention of oil pollution incidents is today primarily dependent upon regulation aiming at an optimal tanker design and better training for the seafarers to prevent spill risks. Liability rules, therefore, have at most an additional deterrent effect to back up this regulation. The fact that the cap may create underdeterrence and thus may affect this additional incentive should not necessarily lead to an increase of pollution incidents. That will depend upon the effectiveness of the regulatory system and the extent to which liability rules provide supplementary incentives. This hence also means that the liability regime itself is only one of many other instruments aiming at the prevention of oil spills. The question to what extent liability is really able to have this deterrent effect is debated in the literature.

The argument that liability rules do deter oil pollution has received support in a doctoral dissertation by Hay who argues that the regulatory system suffers from a serious enforcement deficit and that therefore more can be expected from an exposure of the tanker owner to full liability than from the regulatory regime.[47] In this respect Hay also relies on empirical US based research arguing that after the introduction of the Oil Pollution Act (OPA) in the US in 1990 the

[46] Kraakman, R., Unlimited Shareholder Liability, Palgrave Dictionary of Economics and Law, Macmillan Reference Limited, London, 1998, Volume III, p648-654.
[47] Hay, J., 2006.

liability regime installed by OPA seems to have encouraged polluters to choose a level of precaution which minimizes pollution abatement costs whereas this literature is far more critical of the regulatory provisions of OPA, more particularly the double hull requirement.[48] This hence provides some support for the assumption in the economic literature that the financial cap may lead to underdeterrence, even in the presence of a regulatory system, which equally aims at the prevention of oil spills.[49]

The question therefore arises why financial caps were at all introduced in the CLC in 1969. Limitation of the liability was, as a principle, hardly discussed during the 1969 conference preceding the CLC. This is probably because liability of the shipowner in maritime law had always been limited. The problem is of course that in traditional maritime law the limitation applies in the contractual context towards a charterer. In that case the limit does not pose a specific problem since the limit in liability can be compensated with a lower price for the transport and the charterer could seek protection through first party insurance. Although these arguments do not apply in the context of a liability towards third parties the principle of the limitation was hardly discussed. In addition, in collision cases liability limits apply as well. Different reasons may historically have justified limits on the liability e.g. the fear of liability claims leading to the bankruptcy of shipping companies and thus stifling maritime transport. Historically, those arguments may have been justified but can of course not be transposed to the oil pollution case where the damage is of a totally different nature and magnitude.

It was only mentioned (more particularly by the UK delegation) that a system of limitation of liability was justified by the mechanism of compulsory insurance.[50] That argument is, however, not very convincing since the duty to insure could have been limited to an (insurable) amount whereas the liability itself could have remained unlimited. Most of the discussions during the 1969 conference merely focused on the amount of the limit, not on the principle as such. Remarkable in that respect was that this amount was fixed on the basis of the tonnage of the ship, but the question was hardly asked whether the limited amount of compensation available would be sufficient to cover the actual costs of a (major) pollution incident.[51] The tonnage of the ship could indeed influence the scale of potential damage caused by it, but there are other factors that will also influence the pollution risk. Especially interesting is the empirical study of Smets who analyzed in 1983 what the effects would be of an increase of the available amount of compensation by $250.000.000 (compared to the $ 52.000.000 available at that time).[52] Smets argues that the economic effects of such an increase would be limited as large oil spills are rare events compared with the total number of oil spills. He calculated that the economic impact of the mentioned increase would be less than $0.055 per ton transported and would thus, in other words, be insignificant. The same conclusion was reached by the European Commission in the Erika proposals.

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[48] It is more particularly argued that the costs of the double hull requirements would outweigh the benefits. See inter alia Ketkar, K.W., Protection of Marine Resources - The US Oil Pollution Act of 1990 and the Future of the Maritime Industry, Marine Policy, Vol.19, p391-400.

[49] This is also one of the conclusions of the dissertation by Hay, J., 2006, who therefore argues in favour of abolishing the caps.

[50] See OR 1969, Document LEG/CONF/4, IMO, p487.

[51] Only the US delegation argued that the limit should be fixed in such a way that substantially all losses would be covered. See OR 1969, Document LEG/CONF/4, IMO, p489.

[52] Smets, H., 1983, p31-43.

The basic problem seems to be related to the fact that the drafters of the convention were insufficiently aware of the fact that the limits in traditional maritime law apply in a contractual context where the potential victim stands in a Coasean bargaining situation with the injurer, whereas such a relationship between the tanker owner and the victim of oil pollution damage is usually lacking.

From a theoretical perspective, this might be explained by using the economic theory known as path dependency. It refers to the fact that choices made (in markets, but also by regulators) may to a large extent depend upon past decisions. Arthur argues that there is often a so-called 'lock-in by historical events'.[53] The basic insight is that initial action has put people on a path that cannot be left without some costs.[54] The literature moreover indicates that path dependency may to a large extent also explain why inefficient decisions are sometimes taken. The working of 'laissez faire markets' is the result of this path dependence sticking on undesirable paths.

Although this notion of path dependency has been developed in the literature to explain why individuals sometimes choose inefficient decisions, its importance may not only be limited to market actions or choices of a particular technology. Also outside markets and more particularly when legislation is produced path dependency may play a role.

The model thus has some appeal when addressing the marine oil pollution compensation regime. For example, it might be surprising to realize the fact that the drafters of the CLC simply introduced a limit on the financial liability of the tanker owner without much discussion, but from a theoretical perspective, it may be explained by the phenomenon of path dependency. Chapter 4 showed that financial caps have (for good reasons) a long tradition in maritime law. Since the drafters of the CLC came also from this tradition it is in a way not surprising that at the 1969 diplomatic conference, which resulted in the CLC, the fact that the liability of the tanker owner should be capped was accepted without any discussion. Even when specific aspects of the limit were discussed, like the question under which circumstances the tanker owner could lose his limitation right even in 1984 the drafters again relied on the LLMC 1976. That convention, however, mainly applies to contractual claims in maritime law. Another example is that the breaking of limitation rights under the 1969 and 1992 versions of CLC both mirrors the then prevailing international conventions on limitation of liability for maritime claims, being the Limitation Convention 1957 and the LLMC 1976 respectively. Hence, there seems to be a strong appeal offered by existing regulations in maritime law which may explain why the financial caps and other features of maritime law were introduced in the international oil pollution regime without much discussion. It was apparently a path that may have been efficient in the contractual relationship traditionally envisaged by maritime law, but the dependency upon this path by the drafters may be the source of the resulting inefficiency when the same path was followed to determine the relationship between the tanker owner and third parties.

[53] Arthur, B.W., Competing Technologies, Increasing Deterrence, and Lock-in by Historical Events, Economic Journal, Vol. 97, 1989, p642-665.

[54] Various definitions of path dependency are distinguished in the literature. For details see Liebowitz, S.J. and Margolis, S.E., Path Dependency Lock-in and History, Journal of Law, Economics and Organisation, Vol.11, 1995, p205-226 and Roe, M.J., Chaos and Evolution in Law and Economics, Harvard Law Review, Vol. 109, 1996, p641-668.

2.4 Analysis of the US regime

The US although provides for limited liability in the OPA, but the inefficiencies are not so serious in the US regime as in the international regime. This is because first, the liability limits in the US OPA is so high that it has been challenged only on a few occasions. The data from the Coast Guard shows that since the enactment of OPA until 2009, there have been 51 oil discharges resulting in removal costs and damages that exceed the amended liability limits.[55] Moreover, the calculation of liability limit since the increase in 2006 is not only based on the tonnage, but also related to the structure of the tanker, i.e. the liability limit for a single hull tanker is higher than that for a double hull tanker of the same size. Second, the grant of limitation right is under conditions that the parties have complied with certain requirements, and such a right can easily be lost if the shipowners or other responsible parties do not comply with the relevant requirements or do not co-operate. Third, the non-preemption of state laws leaves the option open for the states to provide for unlimited liability and there are indeed states prescribing unlimited liability in their state laws. All these additional provisions means that the limitation of liability in the US regime is prescribed in an almost unlimited manner and with severe restrictions, which might alleviate at least to certain extent the inefficiencies of the financial limits might have had.

It should be noted that the path dependency also plays a role in introducing financial limits in the US legislation on marine oil pollution. The existence in the US since 1851 a Limitation Act might explain why although dissatisfied with the international regime and lobbying for unlimited liability at the international level, still adopted limited liability in the OPA 1990.

2.5 Analysis of Chinese law

The situation in China is worsened as the amounts available for compensation under Chinese law are far lower than even the caps provided for under the CLC, although the potential damages of pollution in the Chinese water is not necessarily less than at the international level. Nevertheless, the oil transportation by sea in the Chinese waters is very frequent as demanded by the need for oil consumption in China (as third oil importing country next to the US and Japan). Given the huge volume of oil transported by tankers to China, it is likely that the scale of the potential damage caused by oil tankers in China is comparable to that at the international level. Therefore, under the Chinese legal regime, when the potential damage is equally large as in other countries applying the international regime (e.g. France), since the liability limits under Chinese laws are lower, the deterrence effect on the potential injurers is much lower than the international level. More seriously, there is only a general requirement of financial security in Chinese national law, which is not effectively implemented at all. Given the insolvency risk, the victims in China are very likely to be insufficiently compensated or uncompensated at all. As a result, the inefficiencies of financial caps which are inherent in the international system are even more serious in the situation of China.

[55] Oil Pollution Act (OPA) Liability Limits, Annual Report to Congress, Fiscal Year 2009, Department of Homeland Security, August 2009, p3.

V. Economic analysis of channelling

1. Theoretical framework

1.1 Channelling

One major difference between the international and the US regime is that the CLC exclusively channels the liability to the shipowner, while the OPA imposes joint and several liability on the tanker owner, operator and bareboat charterer. The channelling means that the convention or statute indicates which (of many possible) parties can be held liable for the loss and is often exclusive. Thus the question arises whether in the context of oil pollution damage it would e.g. make sense to impose (limited) liability for the consequences of oil pollution damage exclusively on one party, say the tanker owner. This would mean that liability would effectively be "channelled" to the tanker owner and that liability suits either on other grounds against the tanker owner or against third parties are excluded.

Again, within the context of the Coase theorem one could argue that it would theoretically make no difference on which of the potential liable parties that contributed to the risk liability is allocated since the liable party might be able to pass on his liability on the basis of contract. If such a shifting of the liability burden (e.g. between the tanker owner and the cargo interest) could take place the liability would simply be transferred following the Coase theorem[56]. If a legislator would e.g. decide that a tanker owner would be exclusively liable this should not necessarily be a problem to the extent that the liability costs could be passed on to the ones who actually contributed to the loss as well. However, this private re-allocation of liability may not always be possible and may also be limited as a result of insolvency of one of the parties involved.

Hence, several scholars have argued that this regime of channelling is inefficient from an economic perspective at least if one believes that an exposure to liability provides incentives for prevention. It is particularly the aspect in nuclear conventions that channelling leads to a sole liability of the operator, with the exclusion of liability suits against third parties who have contributed to the loss which is criticized in the literature.[57] Indeed, one can well imagine situations, for instance in oil pollution cases where another party has contributed to the loss as well, for instance the one who may have delivered defective nuclear material that contributed to the loss. Exclusive channelling means that the victim no longer has the right to sue another party who could have influenced the accident risk as well. The effect is of course in the first place that the victim's claim may not be fully satisfied and hence one could criticize channelling from a distributive perspective. Moreover, that third party who has contributed to the loss should of course be exposed to liability in order to give him incentives for prevention. If the effect of the channelling is that the third party is no longer liable, this seems clearly inefficient.

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[56] See for an analysis of the channelling in nuclear liability Trebilcock, M. and Winter, R., 1997, p232-235.

[57] For a critical economic analysis of the channelling of nuclear liability see Vanden Borre, T., Transplantatie van 'kanalisatie van aansprakelijkheid' van het kernenergierecht naar het milieu (aansprakelijkheids)recht: een goede of een gebrekkige zaak?, in: Faure, M. and Deketelaere, K. (eds.), Ius Commune en Milieurecht, Actualia in het Milieurecht in België en Nederland, 1997, p329-382 and Vanden Borre, T., Efficiënte preventie en compensatie van catastroferisico's. Het voorbeeld van schade door kernongevallen, 2001, p693-701.

Channelling may well have this effect, especially in the oil pollution case since the liability of the tanker owner (to which liability is channelled) is, moreover, also limited because financial caps are introduced on the compensation due to the victim. Hence, the effect of the combination of a financial cap with channelling is that the victim can exclusively sue the tanker owner, where he is confronted with a financial cap. The victim has no additional possibility to bring another law suit if, as a result of the cap, his damage were not fully compensated. A suit based on tort law against the tanker owner for the amount not covered by the cap is excluded in the convention and a suit against a third liable party is usually excluded because of the channelling as well.

The argument which is sometimes used to defend channelling, is that it makes the life of the victim so much easier since he will no longer have to investigate who precisely the liable injurer is. The convention indeed simplifies the life of the victim by indicating that he can only sue the shipowner to whom liability is channelled. Thus, one could recognize an argument that channelling would lead to a reduction of transaction costs.[58] However, this seems hardly valid: the additional benefit of channelling for the victim is limited (the costs of finding out who is the registered tanker owner who may be primarily liable are not that high), whereas the disadvantages for the victim are huge (he no longer has the possibility to claim his damage from other parties who may have contributed to the loss as well). From a victim's and from a deterrence perspective, one may well argue that a joint and several liability rule may be preferable: in that case, the victim can simply sue any of the available injurers who are all exposed to liability and claim full compensation.

In sum, from an economic perspective one would prefer a situation where all those who contributed in some way to the risk are exposed to liability so that they receive optimal incentives to reduce the accident risk.[59]

1.2 Joint and several liability

The economic literature also pays much attention to the (in)efficiency of a joint and several liability rule.[60] Under joint and several liability a victim can recover full compensation from any of the tortfeasors who have jointly contributed to the loss. This is to be distinguished from a several only liability rule whereby each tortfeasor is only held to compensate a proportion of the

[58] See Vanden Borre, T., 2001, p698-699.

[59] Of course a consequence of holding several parties liable will be that all those parties will also need to take insurance coverage. That may lead to increased administrative costs which was precisely the reason why historically the drafters of the CLC opted for channelling of liability to the tanker owner. However, one should finally wonder whether these increased administrative costs are substantially higher than the losses resulting from not exposing all parties that can influence the accident to risk. It is not very likely that this will be the case.

[60] See for instance, Landes, W. and Posnar, R., Joint and Multiple Tortfeasors: an Economic Analysis, Journal of Legal Studies, 1980, Vol.9, p517-555; Easterbrook, F., Landes, W. and Posnar, R., Contribution among Antitrust Defendants: a Legal and Economic Analysis, Journal of Law and Economics, 1980, Vol.23, p331-370; Polinsky , A. and Shavell, S., Contribution and Claim Reduction among Antitrust Defendants: an Economic Analysis, Stanford Law Review, 1981, Vol.33, p447-471; Spier, J., A Note on Joint and Several Liability: Insolvency, Settlement, and Incentives, Journal of Legal Studies, 1994, Vol.23, p559-568; Kahan, M., The Incentive Effects of Settlements under Joint and Several liability, International Review of Law and Economics, 1996, Vol.16, p389-395; Klerman, D., Settling Multidefendant Lawsuits: the Advantage of Conditional Setoff Rule, Journal of Legal Studies, 1996, Vol.25, p445-462.

damage caused by his individual action.

The efficiency of joint and several liability versus several only liability depends, as held especially in various studies by Kornhauser and Revesz,[61] upon the relative solvency of the parties involved. Under full solvency of all parties involved, joint and several liability has the advantage, so they show, that it provides optimal incentives for prevention. It will lead to a mutual monitoring by all parties potentially exposed to the risk. Moreover, in case one tortfeasor is selected by the victim to compensate the damage he will exercise a right of recourse against those who contributed to the loss as well. This hence provides incentives to all parties involved to take prevention. The result only changes under a potential insolvency. It is related to the general point that insolvency always negatively affects incentives of tortfeasors for prevention. Under joint and several liability insolvency leads to an exclusive liability of one party who is addressed by the victim. That party may, given insolvency of the other actors involved, not have the possibility to collect the part of the damage caused by other from them. Insolvency thus leads to those insolvent actors externalizing harm upon others and therefore to insufficient incentives for prevention.

Whereas, under full solvency joint and several liability may thus have potentially beneficial effects on incentives, the results also change when insurance considerations are taken into account. Many have pointed at the fact that joint and several liability may increase the exposure of insurance companies and thus insurance premiums. It is thus especially when considering insurance aspect that many lawyers have seriously criticized joint and several liability.

2. Application to oil pollution

2.1 Analysis of the channelling in the CLC and Chinese law

As the description of the conventions made clear, the liability in the CLC is "channelled" to the tanker owner. In addition Article III (4) provides that no claim for compensation for pollution damage may be made against the owner otherwise than in accordance with the convention and that no claim may be made against any other person than the tanker owner. As indicated in the economic sketch in section 2, this seems inefficient since many other parties than the tanker owner may also influence the pollution risk. Although the tanker owner may of course be the one who can primarily take safety measures to prevent oil pollution, also other parties can influence the risk and their incentives should hence be influenced by a liability rule as well. This choice, more particularly between a liability on primarily the tanker owner or on the cargo interests was also extensively discussed during the 1969 conference and in the early literature. For instance the German delegation argued that it is the operator who uses the ship for his own account and who can ensure that the ship is properly equipped and managed.[62] The argument was equally made

[61] See Kornhauser, L. and Revesz, R., Sharing Damages among Multiple Tortfeasors, Yale Law Journal, 1989, Vol.98, p831-884; Kornhauser, L. and Revesz, R., Apportioning Damages among Potentially Insolvent Actors, Journal of Legal Studies, 1990, Vol.19, p617-651; Kornhauser, L. and Revesz, R., Settlements under joint and Several Liability, New York University Law Review, 1993, Vol.68, p427-493; Kornhauser, L. and Revesz, R., Multidefendant Settlements: the Impact of Joint and Several Liability, Journal of Legal Studies, 1994, Vol.23, p41-76; Kornhauser, L. and Revesz, R., Multidefendant Settlements under Joint and Several Liability: the Problem of Insolvency, Journal of Legal Studies, 1994, Vol.23, p517-542.

[62] OR 1969, Document LEG/CONF/C.2/SR3, IMO, p627.

by the UK delegation that the cargo owner could exercise no control over the cargo while it was on the sea and that the carrier would be the only one who had the capacity to prevent an incident on high seas[63]. But whereas all these arguments show that at least the tanker owner should be made liable others equally argued that other parties, like e.g. the cargo owners could take preventive measures as well. Indeed, it may be clear that if liability for pollution damage were imposed on other parties (e.g. a cargo owner) this could provide incentives to choose safer ships in order to avoid pollution incidents. In a 1975 paper Wood argued that the US should not follow this example of the CLC in its domestic liability regime since liability should rest upon each party who could take significant precautions to prevent polluting discharges of oil.[64] It is equally argued that liability to discourage negligence and reward shipowners would be poorly served by placing all liability upon registered shipowners, since they rarely have significant control over the operation, manning or navigation of oil tankers. Instead, the typical registered owner is a "straw man" corporation in a "flag-of-convenience" nation.[65] Shipowners often surrender all control of their vessels to bareboat or demise charterers, which are often subsidiaries of the oil companies for which most tankers are in fact constructed".[66]

Although charter arrangement can be quite complex, some form of charter is likely to operate the vessel, hence the charterer or operator usually exercise more effective control over oil tankers than the owners do. Since negligent operations are responsible for nearly all accidental oil spills, imposition of liability upon charterers is needed to provide them with a strong incentive reduce accidental discharges.[67]

The decision in the CLC to exclude liability of all other persons than the tanker owner who could have influenced the accident risk therefore does not seem to be in line with economic insights. The underdeterrence of those parties is, however, still mitigated in at least two ways. First, Article III (5) provides that the Convention does not prejudice any right of recourse of the owner against third parties. One can, however, doubt that tanker owners will often exercise this right of recourse, so that one should not expect too much of an additional deterrence of this possibility of a right of recourse. Second, at least one of the other parties, being the oil receivers, in some way contribute to the costs of oil pollution incidents, since they finance the International Oil Pollution Compensation Fund. However, this only applies to the oil receivers and moreover, there are serious doubts as to whether the financing structure of the Fund provides adequate incentives for prevention.

Interestingly enough the early literature after the 1969 conference also made a reference to the fact that a tanker owner who would face increased liability could also pass on the costs of this additional liability to the oil companies and eventually to the end users. If this presumption

[63] OR 1969, Document LEG/CONF/C.2/SR3, IMO, p638.
[64] Wood, L., 1975, p40.
[65] Gold, Marine Pollution and International Law, Journal of Maritime Law and Commerce, Vol.3, p39.
[66] Swan, Approaches to Oil Pollution Responsibility, Oregon Law Review, Vol.50, 1971, p521.
[67] Wood, L., 1975, p40. Even today, human element is still considered an important factor that contributes to marine pollution incidents. According to a study carried out by Nuka Research and Planning Group of Homer, 80% of oil pollution and marine accidents are the result of human errors. See the study An Assessment of the Role of Human Factors in Oil Spills from Vessels, Nuka Research and Planning Group of Homer, Alaska September 2006. This study is commissioned by the Prince William Sound Regional Citizens Advisory Council, which was created after the grounding of Exxon Valdez by the US Congress.

(referring to the application of the Coase theorem) were met one could argue that the problem of underdeterrence caused by excluding the liability of the charterers should not be that large. Indeed, if charterers where confronted with increased transportation costs as a result of liabilities imposed upon the tanker owner they would in turn claim safer ships as well.[68] For instance at the 1969 conference the Netherlands delegation argued that even though the insurance liability rested with the carrier, it would be transferred to the cargo in the form of increasing freight.[69] This implicit reference to the Coase theorem can also be found in the literature where it is mentioned that oil companies are of course the most efficient in distributing oil production costs.[70] It was equally argued that the increased liability would (partially) be passed on to the end users, even though the added costs were at the time of the 1969 conference only estimated at 0,04%.[71] However, oil companies would, so it was argued, probably not pass on the increment in costs entirely to the end users and would absorb part of it with a decrease in profits.[72]

In addition, the point was also made, both at the 1969 conference and in the early literature that one could wonder whether the exclusion of liability of the tanker owner would make such a big difference since many major oil companies are of course both tanker owners and cargo owners[73]. This may be true for the oil companies which indeed have their own tanker fleet. But there are of course also oil companies that use tankers with which they have no ties at all. (These types of tankers are owned by independent owners.) [74] Hence the question still arises why at the 1969 conference so much attention was paid to allocating liability either to the tanker owner or to the cargo and whether the exclusion of liability of the cargo owner is indeed posing any problem if increased liabilities could be passed on without costs. The answer is probably that the zero transaction cost assumption of the Coasean bargaining setting is not met in all circumstances in the case of a transport of oil. Legal and practical restrictions may inhibit the passing on of the increased liability to the cargo interests. Moreover, in a law suit the victim may be confronted with the solvency boundaries of the tanker owner and his insurer. Given the fact that this liability is limited and that an additional suit against other liable parties like a charterer is prohibited by the CLC, the underdeterrence caused by channelling remains. In sum: it cannot be argued that since increased liabilities of the tanker owner can simply be passed on to the charterer there would be no negative effect at all of the exclusion of liability of other parties than the tanker owner.

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[68] Remind, however, that this argument may only apply to those parties to which the tanker owner can effectively pass on the costs. However, Article III (4) of the CLC mentions a number of other parties that could influence the accident risk with which the tanker owner does not necessarily stand in a contractual relationship and whose liability is also excluded (see e.g. Article III (4) (e): "any person taking preventive measures").

[69] OR 1969, Document LEG/CONF/C.2/SR3, IMO, 643. This point was also made by Lord Devlin in his report to the International Maritime Consultative Organization in 1967.

[70] Hunter, L., The Proposed International Compensation Fund for Oil Pollution Damage, Journal of Maritime Law and Commerce, Vo.4, 1972, p130.

[71] More particularly by the Canadian delegation (see Official Records of the International Legal Conference on Marine Pollution Damage 1969, Document LEG/CONF/C.2/SR4, IMO, 633).

[72] This optimistic view was held by Bergman, S., No-fault Liability for Oil Pollution Damage, Journal of Maritime Law and Commerce, 1973, p44, referring to the strong market power of oil companies.

[73] Hunter, L., 1972, p130.

[74] In 2000 around 25% of the tanker fleet is owned by oil companies, while around 75% is owned by independent tanker owners. In 1960's, 60% of the oil is transported by independent tanker owners. Statistics from INTERTANKO, Swift, P., Oil Shipping Today, 8 March 2005. There seems to be a tendency from the statistics that oil interest has become more separate from the shipping business. This may be the result of large amount of regulations on safety.

A final argument in favor of the channelling of liability to the tanker owner which was also advanced referred to the fact that the tanker owner could more easily obtain insurance coverage than other parties. However, that argument was rightly rejected in the literature as well: each of the other parties who influence the risk of oil pollution incident could easily purchase liability insurance coverage as well. "Insurance rates should reflect the likelihood of a liability-inducing oil discharge and should reward safety measures with lower premiums".[75] Also the insurance argument can therefore hardly provide any justification for the channelling of liability which results in an inefficient exclusion of other parties than the tanker owner who could also influence the risk.

3. Comparative analysis

The legislative history of the international conventions has revealed that the provision on channelling relied upon ease of identification and insurability of the registered tanker owner. The channelling has been criticized from distributive perspective and also for its underdeterrence effect. The arguments in favor of channelling, such as transaction costs reduction, are not strong enough to justify the existence of such a mechanism. Although the underdeterrence can be mitigated in some way, this however is not a convincing evidence to maintain the channelling provision. Hence, it was suggested to impose joint and several liability on each party who could take sufficient precautions to prevent pollution discharges of oil. In theory, at least, each party would have to insure his risks or demonstrate financial responsibility as a self-insurer. Insurance rates should reflect the likelihood of a liability inducing oil discharge and should reward safety measures with lower premiums.

From the above analysis, the American system which imposes joint and several liability on the tanker owner and the bareboat charterer seem more in line with the economic rationale, while the international system channelling liability exclusively to the registered owner seems not justifiable from economic perspective. However, the right of recourse action of the shipowner against third parties is fortunately maintained in the CLC provision, which may to certain extent remedy the inefficiency of the channelling provision. But the practice is that the shipowner and its insurer very often do not exert such right of recourse, hence, its effectiveness remains very doubtful.

4. Lender liability

4.1 Economic theory

An issue which has also received a lot of attention in the economic analysis of law, more particularly in the area of environmental liability is whether financial institutions such as banks could be held liable towards third parties for losses caused by their clients. This topic is often referred to under the general heading "lender liability".

A general principle in economic analysis of law is that all those who contribute in one way or another to the accident risk should be held liable for the financial consequences of damage resulting from those risks in order to provide them sufficient incentives for care. It is precisely on

[75] See Wood, L., 1975, p40.

the basis of that general idea that economic analysis would reject a channelling of liability since it would exclude liability of potential actors even though they contributed to the risk.

On the basis of this general idea it has been defended that also financial institutions who e.g. lend money to polluting enterprises should be held liable when third parties suffer losses resulting from hazardous activities performed by that enterprise.[76] The idea is that by lending money for potentially risky activities financial institutions have in fact enabled the hazardous activities to be carried out.[77] Even though the causal link between the action of a bank and the loss suffered by a third party can be quite remote, it can be held that without the loan by the bank, the hazardous activity could probably not have been carried out or at least not in the same manner. In that sense it can be held that (of course depending upon the amount of the loan) the activity of the bank has contributed to the loss of the third party.[78]

Whether in a specific case this is actually true will depend upon the facts and circumstances of the case. An important element in this respect will be the amount of the loan in proportion to the capital of the enterprise concerned.[79]

The economic reason for lender liability of financial institutions is that this should give them appropriate incentives to monitor the behavior of their customers. Here one can immediately recognize the problem that lender liability may not only have positive effects: it will also increase monitoring costs of banks and moreover lead risk averse financial institutions to the decision not to invest in particularly risky activities even if these would be socially beneficial. An important difference in that respect exists between shareholders on the one hand and financial institutions on the other. The shareholders are protected through the limited liability of the corporation and therefore know *ex ante* that their risk is limited to the amount that they have invested. In the corporation in the form of the shares they purchased. The limited liability of the corporation is precisely instituted to enable to attract risk averse investors who could by investing in stock diversify their portfolio. The financial institution on the other hand is a so-called voluntary creditor who is supposed to assess the creditworthiness of their clients ex ante and reflect the result of this assessment in the interest rate. Extending the riskiness of a loan even further by making financial institutions (differently than shareholders) also liable towards third parties would thus substantially increase their risk exposure. This may either increase the price of the credit or result in the decision of the bank not to extend the loan to a risky business.

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[76] Hooley, R., Lender Liability for Environmental Damage, Cambridge Law Journal, Vol. 60, July 2001, p405-417; see also Patricia Shackelford, Easing the Credit Crunch: A "Functional" Approach to Lender Control Liability under CERCLA, Boston College Environmental Affairs Law Review, Vol.19, 1992, p805-824; John Morgan, Lender Liability: Civil liability Regimes for Environmental Harm, International Law Students Association Journal of International and Comparative Law, Vol.2, 1995, p139-170.

[77] Segerson, K. and Tietenberg, T., The Structure of Penalties in Environmental Enforcement: An Economic Analysis, Journal of Environmental Economics and Management, 1992, Vol.23, p179-200. According to Segerson and Tietenberg, to hold the financial creditors liable may also have the advantage of eliminating the adverse effects of the enterprise' limited liability. They have shown that internalization of environmental cost is achieved only if liability is given to the party that control prevention.

[78] Nolan, S., Foreclosing on Lender Liability: the European Union Launches Environmental, Civil Liability Legislation, Transnational Lawyer, Vol.7, 1994, p257-287.

[79] Sheh, L., Lender Liability and the Corporate Veil: An Analysis of Lenders as Shareholders under CERCLA, Boston College Environmental Affairs Law Review, Vol.25, 1998, p687-715.

To the extent that this monitoring by the bank therefore means that certain inefficient activities (in the sense that they create huge external costs without the corresponding social benefits) would be banned, lender liability may thus lead to the desired result. However, the question arises whether financial institutions are adequate monitors of risky enterprises and whether there are not more appropriate and less costly alternatives (like safety regulation) to reach the same goal. This could especially be a problem when various financial institutions are involved and information costs to find out the hazardous character of the activity executed by the client would be high. This could result in potentially high monitoring cost to verify the potential riskiness of the activity of the client. A simple application of the Coase theorem teaches that these monitoring costs will be passed on by the bank to the client and lender liability may thus potentially result in high monitoring costs and potentially high costs of credit.

4.2 Application of oil pollution compensation regime

These insights could also be applied to the central domain of this thesis, being civil liability for oil pollution damage. At first sight, it seems an unattractive mechanism for victims (assuming that this would legally be possible and thus assuming channelling would no longer exist) to hold a financial institution that awarded a substantial loan to a sub-standard tanker owner liable for the losses suffered by third parties. In this simple case where the bank could easily have checked the quality of the ships used by the particular tanker owner (e.g. on the basis of reports from the classification society) and where (hypothetically) the bank was crucial in making the hazardous activity possible (in the sense that without a loan the operation of the tankers would not have been possible) it is not difficult to argue in favor of lender liability on economic grounds. Monitoring costs in this particular example were probably low. The (potentially small) tanker owner may himself not have much financial means. In that particular case it is very likely that the costs of oil pollution damage would outweigh the capital of the tanker owner and hence an insolvency problem would arise. Shifting the liability to the (potentially richer) financial institutions does make sense to solve the underdeterrence which may result from the judgment-proof problem. Moreover, in this simple example the foresight of lender liability would potentially provide the bank with an incentive either to require from the tanker owner not to use sub-standard ships or not to invest at all in the risky enterprise. The result in the latter case would also be that the activity does not take place. In both cases would lender liability lead to the socially desirable incentive effect and thus could be argued that it may contribute to reducing the social costs of oil pollution.

However, lender liability should probably be restricted to these (potentially limited) cases where monitoring costs are low and shifting liability to the financial institution could solve a judgment-proof problem. One can well imagine other situations where not one but many financial institutions finance a tanker owner and monitoring costs are substantially higher. One can easily think of an example where on paper the tanker owner seems to be running the operation according to the standards but where in practice not (not directly visible for an outsider), and this behavior would lead to an increased risk of oil pollution. In those situations all of the potential negative consequences of the lender liability which were mentioned above (increased prices of credit resulting from inefficiently high monitoring costs) may occur. There it

can easily be seen that lender liability may even increase social costs of accident.

In sum even though from an economic perspective a strong argument can be made against a channelling of liability at the same time one should from this same economic perspective be cautious with a too far reaching liability towards all those who could potentially have contributed to the accident risk. For the reasons stated above the arguments can be made that lender liability in general and for oil pollution risks in particular should be limited to cases where a judgment-proof problem exists (assuming that this cannot be cured otherwise e.g. through compulsory insurance) and where monitoring costs would be low. One should thus clearly think of the examples where for the "average careful financial institution" it should be clear that this loan will enable a particular tanker owner to exercise his activity in such a way that the damage for third parties will result and in those clear cases no one deny that lender liability can provide positive incentive effect and lead to additional relief for victims.

VI. Economic analysis of the compulsory insurance

1. Economic theory of insurance

1.1 General principles and the insurance capacity

A risk averse person, when faced with potential liability, will take some measures to avoid the liability. One such mechanism is insurance. The insurance works on the law of large numbers as the large number of participants makes it possible to spread the risk over a large group. The premium should reflect the risk of the group. The premium is based on the sum of an actuarially fair premium (probability of damage (P) times scale of damage (D)) and a loading cost (including administrative expenses, taking into account the market structure and the profit margin).[80]

Insurance serves two functions, utility maximization of risk averse persons and transaction cost reduction. The risk averse persons can increase his utility function by paying certain amount of money (premium of insurance) so that the risk of uncertainty is removed from him. In this sense, the insurance can also provide protection to the insured.

There are certain conditions to be met to make the risks insurable, and these conditions constitute the capacity of insurance. The insurance capacity depends on certain factors, being the willingness of the insurer (the market) and information. The insurer should have *ex ante* information on the predictability of the P and D. For the ambiguity of certain risks, like the new environmental risks, the insurance will charge an additional risk premium for unpredictability.

Some techniques can be used to increase the insurability in case of large scale damage of certain risks. These include re-insurance, co-insurance, pooling and self-insurance. Pooling is particularly the case for nuclear and environmental risks, such as the P & I Clubs which organize in an International Group through the risk pooling agreement.

[80] A general discussion on the insurance and risks, see Vaughan, E. and Vaughan, T., Fundamentals of Risk and Insurance (10th ed.), US, John Wiley and Sons Inc., 2008.

1.2 Problems with insurance[81]

1.2.1 Moral hazard

When the actors are exposed to the risks, they will have incentives to take prevention. However, such exposure to risks can be removed through insurance. Thus, the actors will have no incentive to take any precaution measures. This change of behavior of the actor after being insured is called moral hazard.[82] This constitutes a problem since the adapted behaviour of the insured (by taking less prevention) will increase the risks of potential loss.[83]

There are certain remedies against moral hazard problem.[84] According to Shavell, the first best solution is individual monitoring, but it is costly. This approach requires detailed control of the insured and an appropriate adaptation of the premium according to the behavior of the insured and it should reflect the care taken by the insured. In an optimal world, this gives incentives to the insured to behave as if there were no insurance available and the premium will thus reflect the true accident risks. It is an ideal solution since it assumes monitoring cost is zero and the information concerning the behavior of the insured is always readily available. In practice, the risk differentiation is realized via premium differentiation, being the insurers charge different premiums for different risks. *Ex ante*, the insurers can charge high premiums for certain high risk groups; *ex post*, the insurers can increase the premiums or change policy conditions based on previous loss experience of the insured (experience rating).

The second best solution according to Shavell is to expose the insured partially to risk. Thus certain degree of risks remain with the risk averse injurer, hence, the injurer although insured will still have at least some incentives to take care. In practice, this partial risk can be realized via deductible or franchising.[85]

Therefore, liability insurance has an important social function: if moral hazard is optimally controlled, the insurance will give incentive for care-taking; if there is no efficient control of moral hazard, insurance might even increase the risks which does more bad than good to the society.

1.2.2 Adverse selection

Insurance is based on a system of loss spreading. Insurers try to make risk pools to put similar risks together and charge similar premiums accordingly. The average premium should

[81] For an empirical study on this issue from the perspective of behavioral law and economics, see Van Boom, W., Insurance Law and Economics: An Empirical Perspective, in: Faure, M., and Stephen F. (eds.), Essays in the Law and Economics of Regulation, in Honour of Anthony Ogus, Antwerp, Intersentia, 2008, p253-276.
[82] For detailed discussions on the problem of moral hazard, see Cummins, J.D. and Tennyson, S., Moral Hazard in Insurance Claiming: Evidence from Automobile Insurance, Journal of Risk and Uncertainty, Vol. 12, 1996, p29-50; Bolduc, D., Fortin, B., Labrecque, F. and Lanoie, P., Workers' Compensation, Moral Hazard and the Composition of Workplace Injuries, The Journal of Human Resources, Vol. 37, 2002, p623-652.
[83] Dionne, G. (ed.), Handbook of Insurance, Boston, Kluwer Academic Publishers, 2000.
[84] This has been extensively discussed by e.g. Shavell, S., On Moral Hazard and Insurance, Quarterly Journal of Economics, 1979, p541-562.
[85] Faure, M., and Hartlief, T., Insurance and Expanding Systematic Risks, OECD, Paris, 2003, p260.

correspond with the risk of most of the members in the pool. Otherwise, the insurer cannot recognize the good or bad risks (information asymmetry), and he might charge a high premium for low risk members who will then leave the pool. The problem that increase in insurance premium drives out good risks while retaining the bad risks is called adverse selection.[86] The adverse selection problem can be so serious that in 1970's and 80's, it caused the insurance crisis in the US.

The cure to adverse selection problem is to reward good risks through specialization. Further differentiation is required when marginal benefit is larger than the marginal cost. Specialization has the advantage of adequate information at lower costs (save money) and competing with preventive measures (for society). It is thus the only way some complex environmental risks could be insured. However, it supposes the moral hazard problem is controlled in an optimal way.

2. Application to oil pollution

2.1 Theoretical framework

It is already mentioned that a strict liability rule can be considered efficient only if there is no insolvency risk. Insolvency may pose a problem of underdeterrence. When the magnitude of damage exceeds the wealth of the injurer, the injurer is not fully exposed to the risks, and he is only confronted with the risk of losing his own assets. Hence his incentives to take prevention are only up to the amount of his assets, which will be lower than the optimal care required by the actual level of damage, which means the injurer will externalize the harm he could cause. Moreover, he will purchase liability insurance only up to the amount of his own assets (which is smaller than the damage) instead of the potential damage. Thus the insolvency of the injurer leads to underinsurance as well. This problem is also called judgment-proof problem. The judgment-proof problem may therefore lead to underinsurance and thus to underdeterrence. Jost has pointed out that in the case of insolvency, compulsory insurance might provide an optimal outcome.[87] By introducing a duty to purchase insurance coverage for the amount of the expected loss, better results will be obtained than with insolvency whereby the magnitude of the loss exceeds the injurer's assets.[88] In the latter case the injurer will consider the risk as one where he could at most lose his own assets and will set his standards of care accordingly. When he is, under a duty to insure, exposed to full liability the insurer will obviously have incentives to control the behavior of the insured. Via the traditional instruments for the control of moral hazard the insurer can make sure that the injurer will take the necessary care to avoid an accident with the real magnitude of the loss. Thus Jost and Skogh argue that compulsory insurance can, provided that the moral hazard problem can be cured adequately, provide better results than

[86] Rejda, G.E., Principles of Risk Management and Insurance, Boston, Addison Wesley, 2003, p23.

[87] Jost, P.J., Limited Liability and the Requirement to Purchase Insurance, International Review of Law and Economics, 1996, p259-276. A similar argument has recently been formulated by Polborn, M., Mandatory Insurance and the Judgement-Proof Problem, International Review of Law and Economics, 1998, p141-146 and by Skogh, G., Mandatory Insurance: Transaction Costs Analysis of Insurance, in: Bouckaert, B./De Geest, G. (eds.), Encyclopaedia of Law and Economics, 2000, p521-537. Skogh has also pointed out that compulsory insurance may save on transaction cost.

[88] See also Kunreuther, H. and Freeman, P., Insurability, environmental risks and the law, in: Heyes, A. (ed.), The Law and Economics of the Environment, 2001, p316.

under the judgment-proof problem.

This economic argument shows that insolvency may cause potentially responsible parties to externalize harm: they may be engaged in activities which may cause harm which can largely exceed their assets. Without financial provisions these costs would be thrown on society and would hence be externalized instead of internalized. Such an internalization can be reached if the insurer is able to control the behavior of the insured. The insurer could set appropriate policy conditions and require an adequate (risk related) premium. This shows that if the moral hazard problem can be cured adequately insurance even leads to a higher deterrence than a situation without liability insurance and insolvency.[89]

2.2 Application to the marine oil pollution regime

It is not difficult to argue that the introduction of a duty on the liable tanker owner to seek financial coverage to meet his obligations fits into the economic framework. The CLC was wise enough to stipulate that the financial security should not necessarily be provided through insurance. Article VII (1) refers explicitly to "insurance or other financial security, such as the guarantee of a bank or a certificate delivered by an international compensation fund". Indeed, insurance is only one of the ways in which the tanker owner could provide security so that he can meet his liabilities.

During the 1969 conference the main reason which was advanced as justification for the introduction of compulsory insurance was victim compensation. However, from an economic perspective compulsory insurance is, as was indicated above, especially important as a remedy for underdeterrence as a result of insolvency. Of course criticism could be formulated with respect to the way in which the obligation was formulated. This refers e.g. to the fact that the compulsory insurance only applies to tankers carrying more than 2000 tons of oil in bulk as cargo, whereas also smaller ships could cause large pollution and face insolvency problems.[90] Another issue is that during the 1969 conference it was proposed to give the contracting state the right to refuse access to the port where ships could not produce the required certificate, proving the availability of insurance.[91] This proposal was not accepted and the finally accepted formulation in the convention merely provided that the states would "ensure" that a ship entering or leaving its port comply with the requirement of compulsory insurance, which may of course create enforcement problems.[92]

In the literature criticism has been formulated with respect to the practical working of the insurance, more particularly as it is provided through the P&I Clubs. It has been criticized that

[89] There are, however, also a few dangers that should be taken in to account when a duty to insure is introduced. One of them is that the moral hazard problem should be cured; another is that there may not be concentration on insurance markets. For these potential dangers of compulsory insurance see Faure, M. (ed), Deterrence, insurability and compensation in environmental liability. Future developments in the European Union, New York, Springer, 2003, p185-189.

[90] See the discussions in this respect at the conference, Official Records of the International Legal Conference on Marine Pollution Damage 1969, Document LEG/CONF/C.2/SR14, IMO, 708-709.

[91] This was more particularly proposed by the French delegation, see Official Records of the International Legal Conference on Marine Pollution Damage 1969, Document LEG/CONF/4, IMO, 468.

[92] Article VII (11) of the CLC 1969.

the international agreement between the P&I Clubs under the International Group restricts competition.[93] This will be further discussed below.

2.3 Economic analysis of P & I Clubs

Different than other types of liability insurance, the marine oil pollution liability is insured via the P & I Clubs, which is a mechanism of mutual insurance. This particular form of insurance is worth some further analysis.

The P & I Clubs are actually shipowners gathering together on a mutual basis and covering risks which would have been normally uninsurable via commercial insurance. The mutuality is embodied in that it is the shipowners themselves who insure their own risk and the insurance premium (call) paid by one member depends on the claim made by all other members in the Club. Thus some argues that the mutuality leads to optimal prevention from the participating shipowners.[94]

The P&I insurance, like other forms of insurance, is also subject to the moral hazard problem, which may lead to a tragedy of the commons. As economically rational individuals, Club members may take less care once they are insured, because they know their costs of accident will be shared among all the Club members. If all shipowners took this view, the result would be high premiums for every one. Insurers (the Clubs) will be confronted with the problem of adverse selection. So the mutuality in itself does not solve the moral hazard problem or lead to optimal care level.

The premiums charged to every individual shipowners as Club members are largely based on experience rating. Hence, the Clubs with bad accident record will be confronted with high entry fee. However, high claims in one particular year would be absorbed by other members of the Club. It is very important to establish differentiated premiums so that each member pulls its weight.

On the other hand, competition between Clubs may limit their influence on safety and environmental performance of the shipowners. Rate competition between Clubs might break the link between risk and premium, reducing the incentive effect of premiums to enhance safety and environmental performance. The International Group therefore established a rule via its "International Group Agreement" that if a shipowner switches clubs, the new club must not undercut the old club for at least 1 year.[95] This rule obviously has the effect of restricting competition between clubs and was thus challenged by the European Commission.

There was a long debate between the Commission and the International Group during 1997 and 1998. The Commission argued that competition could actually enhance the differentiation of

[93] See Faure, M. and Van den Bergh, R., Restrictions of Competition on Insurance Markets and the Applicability of EC and Anti-trust Law, Kyklos, 1995, p65-85.
[94] Bennett, P., Mutual Risk: P & I Insurance Clubs and Maritime Safety and Environmental Performance, Marine Policy, Vol.25, 2001, p13-21.
[95] Bennett, P., 2001, p17.

premiums so that good shipowners would be rewarded with lower insurance costs, those clubs that accurately assessed risks would offer lower premiums to good shipowners without suffering losses. The Clubs argued on the other hand that mutuality means the shipowners are not only customers, but providers of insurance at the same time. They argued that the International Group Agreement was central to maintaining mutuality between shipowners in a club because it prevented poorly performing members from escaping the financial penalties of their actions. Their key point was that the information required for an efficient free market to function was not available. Underwriters in other clubs may not know the loss record of a shipowner, and even if they were given basic statistical data, they would still not have the tacit knowledge of a shipowner's existing club, built up through years of membership, that plays such a crucial role in rate setting. Frequent switching between insurers in a market characterized by information asymmetries leads to poor risks switching and being charged under the odds, effectively subsidized by those better risks which remain loyal.[96]

The European Commission has granted an exemption from the old cartel Article 85 (3) of the EEC treaty on 16 December 1985 for this international agreement.[97] In a report of the European Commission in 1999 concerning regulation nr. 3932/92,[98] the Commission once more holds that a cooperation between the P&I Clubs is necessary to provide the required coverage (even though the Commission equally states that all P&I Clubs together have a world wide market share of 89% on the market for marine insurance).[99] This exclusion of competition always creates the danger of too high premiums, too little product differentiation and a too low supply for coverage.[100] Of course one may argue that since it is the shipowners themselves that largely constitute the P&I Clubs the consequences of the restricted competition should not be that dramatic since no one would after all be victimized. That is, however, not entirely true. First of all, there are many shipping lines that do not participate in the P&I Clubs and hence will have to seek marine insurance coverage through the Clubs. Second, the restrictions on competition may, within the context of oil pollution damage also lead to a too limited supply of insurance coverage for pollution damage, which may thus harm the interests of third parties. Another consequence of too little competition between the P & I clubs may be that their incentives for an effective monitoring may be reduced. Thus the efforts of P&I clubs to monitor oil discharge may be sub-optimal.[101]

VII. Economic analysis of compensation fund

1. Theoretical framework

From the above it follows that if one fears that those on which liability for oil pollution damage is placed (e.g. the tanker owner) might be insolvent (in the sense that the amount of the damage

[96] Bennett, P., 2001, p17-18.
[97] For a criticism on this exemption see Faure, M. and Van den Bergh, R., Objectieve aansprakelijkheid, verplichte verzekering en veiligheidsregulering, Antwerp, Maklu, 1989, p331-336.
[98] Com (1999) 192 final, 12 May 1999.
[99] Report, nr. 29.
[100] For details see Faure, M. and Van den Bergh, R., Aansprakelijkheidsverzekering, concurrentie en ongevallenpreventie, in: Ton Hartlief and Mendel, M.N. (eds), Verzekering en Maatschappij, Deventer, Kluwer, 2000, p315-342.
[101] See Faure, M. and Heine, G., The Insurance of Fines: the Case of Oil Pollution, The Geneva Papers on Risk and Insurance, 1991, p49-50.

which they may cause could be higher than their wealth) a duty to seek financial coverage (through insurance or alternative mechanisms[102]) should be introduced. However, the amount of oil pollution damage may be so large that even traditional insurance mechanisms or pooling by operators (P&I Clubs) may not provide sufficient coverage. The question then arises whether supplementary funding should be provided through e.g. a compensation fund and what can be suggested as far as the efficiency of such a fund mechanism is concerned.

First, no matter how a compensation system is organized, the incentives for prevention of pollution damage should always remain untouched. Liability rules can only have a preventive effect if the duty to compensate is put on the one who actually contributes to the risk. The same applies to compensation fund. This means that a duty to contribute to the fund should in principle only rest upon the one who actually contributes to the risk.

A second, related principle is that this duty to contribute should also be related to the amount in which the specific activity contributes to the risk. This principle is usually automatically respected in liability law. The duty to compensate under tort law is indeed usually limited to the damage that the specific tortfeasor himself has caused.[103] However, if a collectivization of the compensation takes place, it remains important to guarantee that the tortfeasor only contributes financially in relation to the amount in which he contributes to the risk. This is reflected in insurance policies in the idea of risk differentiation. It simply means that bad risks pay a higher premium than good risks. This principle should also be applied if a compensation fund is installed, meaning that bad risks should contribute more to the compensation system than good risks. This remains important since it will give incentives for prevention to the contributors to the fund. Bad risks will be punished and good risks shall be rewarded.

These principles are not only important from an efficiency point of view (providing optimal incentives for prevention), but also include a fairness element. Indeed, if these principles were not followed, it would mean that good risks would have to pay for the bad risks as well and would therefore in fact subsidize bad risks. This negative redistribution should be avoided and therefore the compensation mechanism, fund or insurance, should be financed principally by the ones who really contributed to the damage.

To summarize, the (supplementary) compensation mechanism should aim at a differentiation of the contributions due. This differentiation is only possible if the agency administering the fund possesses information on the amount in which the specific activity contributes to the risk. One key element to determine the choice between insurance or fund is therefore who possesses the best information to control the risk.

[102] See Faure, M., Alternative Compensation Mechanisms as Remedies for an Insurability of Liability, The Geneva Papers on Risk and Insurance, Vol. 29, No. 3, 2004, p455-489.

[103] Unless there would be joint and several or channelling of liability. For an economic analysis of these phenomena see Faure, M., Causal Uncertainty, Joint and Several Liability and Insurance, in: Koziol, H. and Spier, J. (eds.), Tort and Insurance Law, Liber Amicorum Pierre Widmer, Vienna, Springer, 2003, p79-98.

2. Application to oil pollution

2.1 IOPC Fund

If compensation of oil pollution damage is set as a policy goal and it appears that traditional insurance markets (or pooling through P&I Clubs) cannot provide more or less full compensation, alternatives will have to be developed through (public or private) compensation funds. However, the economic literature has generally held that also in structuring such a compensation fund a cost reduction should be achieved and the duty to contribute to the compensation mechanisms should in principle be laid on those that create the risk and in the proportion in which they create the risk.

It is shown that whenever an alternative compensation mechanism like a fund is installed, in principle a risk and premium differentiation should be applied as well in order to provide optimal incentives for prevention. One can question whether the financing structure of the current International Oil Pollution Compensation Fund corresponds with these principles. Indeed, the Fund is financed by levies on the oil transported, to be paid by the oil receivers. An interesting point is that as a result of this financing of the Fund by the oil interests the compensation regime consists on the one hand of the (limited) liability of the tanker owner and supplemented with a Fund which is financed by the oil receivers on the other. At the 1969 conference it was, moreover, made clear that only because part of the compensation would be provided through the oil interests via the Fund the liability of the tanker owners was considered acceptable.[104] If this would mean that as a result of this the oil interests would receive incentives for preventing oil incidents some of the downsides of the channelling could be undone. However, given the financing structure of the Fund one can doubt whether this actually provides for incentives for prevention to the oil interests. Indeed, their financial burden towards the Fund is merely determined on the basis of the amount of oil discharged, not on the basis of preventive measures taken or actual oil pollution incidents. Hence, the oil receivers are not rewarded e.g. for choosing safer ships or punished (with a higher contribution) for choosing riskier ones. Their contribution to the Fund merely varies with the amount of oil transported. In terms of the economic analysis one can argue that the financing structure merely provides incentives to the oil industry for reducing the activity level (transporting less oil) but not for an efficient level of care. Moreover, the Fund (in the normal case) only intervenes for the amount which is not covered by the limited liability of the tanker owner[105] which is of course a small part of the total costs of an oil pollution incident. It was held during the conference to prepare the Fund that only 5% of large scale oil casualties could not be dealt with under the existing rules.[106] This means that the oil interests would effectively only intervene for a relatively small part of the oil pollution incidents, albeit that the incidents where the Fund intervenes can of course usually be considered as catastrophic.

Interestingly enough the early literature from just after the drafting of the Fund Convention 1971

[104] See the comments made at the 1969 Conference by various delegates in OR 1969, Document LEG/CONF/3, IMO, p2-11.
[105] An exception constitutes the case where the tanker owner would be insolvent. In that case the fund would de facto act as a guarantor towards the victim.
[106] OR 1969, Document LEG/CONF/C.2/SR12, IMO, p685-686.

formulated similar serious criticism on the Fund. Already in 1972 in a critical paper Hunter held that precisely for the reasons mentioned above the Fund would not play a meaningful role in the preventive aspect of oil pollution problems.[107] The 1971 version of the Fund Convention moreover had a curious rule in Article 5, which provided that the Fund would indemnify a shipowner for certain amounts the shipowner would have paid to third parties. Thus the 1971 Fund also had a so-called "shipowner indemnity" function (or roll-back function). The literature of course held that this reduction of the shipowner's liability through the Fund will reduce his motivation to avoid oil discharges proportionally.[108] In the 1992 version of the Fund Convention this disputed Article 5 has been deleted.

In sum: the efficient structure of a compensation fund according to the economic literature is to levy contribution only on those who create the risks and in the proportion in which they create the risks. It seems that these principles are only to a small extent followed in the design of the Fund Convention. The drafters apparently attached more importance to balancing the contribution of tanker owners and cargo interests instead of designing a system that would provide optimal incentives for the prevention of oil spills by all those who created those risks.

Article 5 of the 1971 Fund provided that the Fund would compensate the shipowner for certain proportion of his liability under the CLC, and this is known as the roll-back function of the 1971 Fund. However, in the 1992 Protocol, this function of the Fund was deleted. Now the rationale for introducing or deleting of such role of the Fund will be examined.

To indemnify the shipowner partially for his liability was originally introduced to strike the balance of the interests between the shipping and the oil industry, and it was intended to provide shipowner with additional incentive to prevent oil spills. However, this roll-back function of the Fund may at the same time reduce the incentives of the shipowner to take preventions as the shipowner would be exposed to less than full liability, hence he will take less than optimal liability required by the total costs of the oil pollution, but he will choose a care level corresponding with the residual liability after indemnification from the Fund.[109]

The indemnification from the Fund was based on the condition that the shipowners complied with four conventions specifically mentioned in the Fund Convention 1971. These are the International Convention for the Prevention of Pollution of the Sea by Oil 1954 as amended in 1962, the International Convention for the Safety of Life at Sea 1960, the International Convention for Load Lines 1966, the International Regulations for Preventing Collisions at Sea 1960. The Fund may be exonerated wholly or partially from its roll-back obligation towards the owner if his ship did not comply with the requirements in these conventions. In order to avoid payment, the Fund must carry the burden of proving the shipowner's non-compliance as a result of "the actual fault or privity of the owner". (Article 5.3 of the Fund Convention 1971)

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[107] See Hunter, L., 1972, p127-137. Compare Cummins, P., Logue, D., Tollison, R. and Willett, T., Oil Tanker Pollution Control: Design Criteria vs. Effective Liability Assessment, Journal of Maritime Law and Commerce, Vol.7, 1975, p174-177, where it is equally argued that a public compensation scheme for oil pollution damage should be based on premiums which are related to expected damages in order to provide incentives to prevent oil spills.

[108] See Wood, L., 1975, p58.

[109] Wood, L., 1975, p58.

This provision may seem useful at face value as it increased the effectiveness of the four conventions since it applies to all indemnification claims whether or not the vessel's state of registry is a party to the listed conventions. It bypassed national acceptance of the four conventions. However, it will have little force in reducing oil pollution incident in practice. The requirement of "actual fault or privity" of the shipowner restricted the usefulness of such a clause. Traditionally in maritime law, "actual fault or privity" means personal fault rather than the fault of a vessel's master or crew attributed to the shipowner under the doctrine of *respondeat superior*.[110] As mentioned before, the owner usually has no knowledge of or connection with the operation of his vessel, so this provision would not bar his claim for full indemnification even the operator or master of the tanker had violated many provisions of the four specified conventions. The numerous operational requirements of the four listed conventions would not affect most registered tanker owners.[111]

The US put forward the proposal that the shipowner would be indemnified only if they observed standards of pollution control and prevention established by the Fund. The US envisaged the Fund as adopting such standards only on the recommendation of the IMCO for the Fund itself has no technical competence. But this proposal was not adopted at the conference. In fact only Canada and West Germany really supported this proposal.

The Fund was thus criticized to be ineffective and inadequate, especially because it did not play a meaningful role in the preventive aspect.[112] Hunter also criticized the IMCO in the 1970's to be representing shipping interests rather than the cargo interests. The major oil companies, which are both tanker owners and cargo owners, had to accept such an argument as they would be ultimately the one bear the costs.[113]

2.2 OSLTF

The major financing source of the OSLTF an environmental tax which is based on the amount of oil transported. In this respect, the structure of the OSLTF is similar with the IOPC Fund at the international level, therefore similar critiques also holds: such a financing structure only gives incentives to the shipowner and the other responsible parties to reduce the activity level, but it does not give incentives for care taking. The oil importers for example are not rewarded (by having to pay a lower contribution) for investments in prevention (e.g. choosing safer ships).

2.3 China

There is so far no compensation fund established in China. The practice has proved the necessity for such a fund, either to join the IOPC Fund, or to build a domestic fund. Currently, a research is carried out for the feasibility of a domestic fund.

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[110] Healy, N. and Paulsen, G., 1970, p537, 566; Hunter, L., 1972, p138.
[111] Wood, L., 1975, p59-61.
[112] Hunter, L., 1972, p133, 137.
[113] Hunter, L., 1972, p131.

3. Suggestions from literature

When proposing a US domestic fund, Wood criticized the IOPC Fund as an imperfect system to collect non-variable fees on imported oil as it did not provide incentives for private efforts to minimize oil pollution damage. The Fund simply fixed the contribution according to the amount of oil received, but made no provision to vary an oil importer's contribution related to the safety record of his tankers, the safety devices he employs on his ships, the training of his employees, etc.[114] According to Wood, the theoretically ideal system would assess a variable charge upon every shipment of oil based on the risk of oil pollution associated with its transportation.[115] However, such a modal may impose too heavy administrative burdens. Wood hence suggested that a better fund system may base its initial contribution on the number of oil spills which each specific vessel has caused in the past, if that record seems indicative of current operating standards. A contributing oil cargo owner should be allowed to decrease its contribution by installing better equipment to prevent pollution, hiring better pollution control personnel, training employees in pollution abatement, etc.[116]

VIII. Economic analysis of regulation

1. Economic theory on regulation

So far the compensation for oil pollution damage is addressed from an economic perspective, whereby the notion is stressed that laying a duty on those who cause the pollution incident will hopefully have a deterrent effect. However, it has equally been indicated in the literature, more particularly by Shavell that as far as environmental risks are concerned regulation may be a more appropriate instrument than liability rules[117]. The criteria are well known: if information on optimal safety devices can better be acquired through the government than through private parties, if there is a serious insolvency risk and if the threat of a liability suit may be low there is a strong argument in favour of regulation. All of these arguments may apply in the case of oil pollution damage.

If one looks at the first criterion, that of information costs, it must be stressed that an assessment of the risks of a certain activity often requires expert knowledge and judgment. Smaller organizations (shipowners) might lack the incentive or resources to invest in research to find out what the optimal care level (tanker design) would be. Also, there would be little incentive to carry out intensive research if the results were automatically available to competitors in the market: this is the well-known "free rider" problem. This problem can partially be countered by legal instruments granting an intellectual property right to the results of the research. However, the problem remains that it may not be possible for small companies to undertake studies on the optimal technology for preventing environmental damage. Therefore, it is often more efficient to allow the government itself to do the research on the optimal technology. The results of this research can then be passed on to the parties in the market through the regulation. Hence, the

[114] Wood, L., 1975, p46.
[115] Wood, L., 1975, p47.
[116] Wood, L., 1975, p47-50.
[117] See Shavell, S., Liability for Harm versus Regulation of Safety, Journal of Legal Studies, 1984, p357-374, Shavell, S., A Model of the Optimal Use of Liability and Safety Regulation, Rand Journal of Economics, 1984, p271-280 and Shavell, S., 1987, p277-290.

setting of safety standards in regulation can be seen as a means of passing on information on the minimal safety technology required. Obviously, it is more efficient for the government to acquire information on the optimal safety standard for tanker design than it would be for an individual firm, for instance, to find out what additional reduction in the probability of oil pollution would produce an optimal reduction of the expected damage. There are hence undeniable "economy-of-scale" advantages in regulation of e.g. tanker CDEM design and discharge standards.[118]

Also, the insolvency argument points in the direction of regulation. Pollution can be caused by ships with assets which are generally lower than the damage they can cause. In this respect it should not be forgotten that even a small firm could cause harm to a large number of individuals or to entire ecosystems. The amount of damage caused by this pollution can of course largely exceed his individual assets. Moreover, most firms have been incorporated as a legal entity and therefore benefit from limited liability. Hence, the individual shareholders are not liable to the extent of their personal assets, but a creditor of the firm can only lay claim on the assets purchased in the firm by the shareholders.

In addition, the chance of a liability suit being brought for damage caused by oil pollution is naturally very low. The damage is often spread over a large number of people, who will have difficulties to organize themselves to bring a law suit. The source of the oil pollution may often be unknown. Moreover, there is often a long time laps between the wrongful act and the occurrence of harm. This is often referred to long-tail risks or latency problem. Thus it might occur that risks are not foreseen at the time when the tort was committed. This will bring proof of causation and latency problems, which will only make it difficult for a lawsuit to be brought against the polluter.

Second, there is a tendency to shift the risk of causal uncertainty to the insurer. The uncertainty endangers the predictability of risks which accordingly influence the insurability. The remedy to such problem is proportionate liability, being all victims can claim a proportion of their damage equal to the amount by which contributed to the loss.

For these reasons it is clear that some form of regulation of tanker design to prevent environmental pollution is necessary. To reformulate: this shows that liability rules alone cannot suffice to prevent oil pollution, but there might be other, publicly imposed instruments than which can be used to reach this goal.

Although there is thus a strong argument to control the oil pollution risk through *ex ante* regulation in individual cases there still can be damage to the environment. Moreover, the regulation relies very much on enforcement which may be weak, and the standards established in the regulations may be the result of public choice, or the safety standards may depend on the best available technology. Then again, liability under tort comes into the picture and the question has been addressed in the literature how regulation influences the liability system and vice versa. The complementary relationship between tort law and regulation has been examined in detail by

[118] See the discussion in Chapter 3.

Rose-Ackerman,[119] Faure/Ruegg,[120] Kolstad/Ulen/Johnson[121] and also by Arcuri[122] and Burrows.[123] Rose-Ackerman compared US and European experiences in using regulation versus tort law in environmental policy.[124] The first point which is often stressed is that the fact that there are many arguments in favor of *ex ante* regulation of the environment, does not mean that the tort system should not be used any longer for its deterring and compensating functions. One reason for still relying on the tort system is that the effectiveness of (environmental) regulation is dependent upon enforcement, which may be weak. In addition, the influence of lobby groups on regulation, to which public choice theory has rightly pointed, can to some extent be overcome by combining safety regulation and liability rules. Hence, from the above it follows that although there is a strong case for safety regulation to control the environmental risk, tort rules will still play an important role as well.[125]

2. Application to oil pollution

It is, given Shavell's criteria for safety regulation, no surprise that increasingly the risk of pollution incidents is controlled through regulation aiming at the design of tankers in such a way that pollution incidents can be prevented. The phasing out of single hull tankers, state inspections by port states and controls by classification societies are just some of the regulations that have received increasing attention in recent years. Of course increased safety designs will lead to (a small) increase in oil prices, which has been calculated in various empirical studies.[126] This is of course not the place to discuss the efficiency and effectiveness of these tanker design regulations. More interesting is the question whether in addition to this regulation, any additional deterrent effect can be expected from liability rules. It is, lacking empirical evidence, not possible to provide hard data on the effectiveness of liability rules in supplementing safety regulation. There are, however, some indications in the literature. For instance Wood argues that "civil liability can also serve a prophylactic function. A properly structured system for civil liability would exert a powerful influence to discourage polluting discharges of oil".[127] Cummins et al examine

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[119] Rose-Ackerman, S., Rethinking the Progressive Agenda, The Reform of the American Regulatory State, 1992, p118-131; Rose-Ackerman, S., Environmental Liability Law, in: Tietenberg, T.H. (ed.), Innovation in Environmental Policy, Economic and Legal Aspects of Recent Developments in Environmental Enforcement and Liability, 1992, p223-243 and Rose-Ackerman, S., "Public Law versus Private Law in Environmental Regulation: European Union Proposals in the Light of United States and German Experiences", in: Eide, E and Van den Bergh, R. (eds.), Law and Economics of the Environment, 1996, p13-39.

[120] Faure, M. and Ruegg, M., Standard Setting through General Principles of Environmental Law, in: Faure, M., Vervaele, J. and Weale, A. (eds.), Environmental Standards in the European Union in an Interdisciplinary Framework, 1994, p39-60.

[121] Kolstad, C. D., Ulen, T. S. and Johnson, G.V., Ex Post Liability for Harm vs. Ex Ante Safety Regulation: Substitutes or Compliments?, American Economic Review, Vol.88, 1990, p88-901.

[122] Arcuri, A., Controlling Environmental Risk in Europe: the Complementary Role of an EC Environmental Liability Regime, Tijdschrift voor Milieuaansprakelijkheid, 2001, p9-40.

[123] Burrows, P., Combining Regulation and Liability for the Control of External Costs, International Review of Law and Economics, 1999, p227-242.

[124] Rose-Ackerman, S., Public Law versus Private Law in Environmental Regulation: European Union Proposals in the Light of United States Experience, Review of European Community and International Environmental Law, 312-332 and Rose-Ackerman, S., Controlling Environmental Policy: the Limits of Public Law in Germany and the United States, 1995.

[125] For a different analysis, leading to the same result that liability and regulation should be combined see Schmitz, P.W., On the Joint Use of Liability and Safety Regulation, International Review of Law and Economics, 2000, Vol.20, p371-382.

[126] For an early one see Pedrick, J. Jr., Tankship Design Regulation And Its Economic Effect on Oil Consumers, Journal of Maritime Law and Commerce, Vol.9, 1978, p377-395.

[127] Wood, L., 1975, p2.

explicitly the effectiveness of liability versus regulation in oil tanker pollution control.[128] They argue strongly in favor of liability rules and against regulation, arguing that a liability for major oil spills would leave it up to the tanker owner to choose the least cost method of pollution control in case of oil spills.[129] They conclude that imposing design standards might inhibit innovation and would be much too rigid compared to a liability system.[130] Of course one could rebut to these authors that 30 years of experience after they published their paper showed that apparently the liability regime has not been able to prevent major oil spills like with the Erika or the Prestige. However, this would hardly be fair given the fact that the liability system as it was installed in the CLC 1969 of course did not provide adequate incentives, given the channelling and the low limits on the liability of the tanker owner.

Whenever inefficiencies are discovered in a legislative regime, whether this is an international convention or national law public choice scholar will point at the possible influence of interest groups which may explain these inefficiencies. The historical evolution of the international oil pollution compensation regime has revealed that, even though detailed information is lacking, one can undoubtedly notice some influence of special interest. A starting point for the international regime was the well-known Torrey Canyon incident which triggered the need for a legislative reaction. That can well fit into the theory of Rubin and Keenan concerning so-called 'shadow interest groups'. They argue that politicians may react to a shadow interest group being a group that is not active yet but that may emerge as soon as a particular problem arises.[131] Victims of oil pollution damage could certainly be considered as members of such a shadow interest group. Once the accident occurs they could become active and hence one understands that politicians may *ex ante* wish to take their existence into account in regulation.[132]

Also as far as the content of the convention and more particularly the financial cap is concerned it is of course not difficult to argue that this may be the result of successful lobbying of the shipping industry. One can indeed clearly notice during the conference preceding the CLC 1969 that shipping nations were for obvious reasons lobbying in favor of low financial caps on liability whereas potential victims (coastal states) were opposing this and preferred higher limits. Nevertheless the CLC cannot be considered as the mere result of successful rent seeking by the shipping industry. The CLC 1969 / Fund Convention 1971 regime may rather be the result of a workable balance between the competing interests. The ship owning states defended different interests than coastal states which could be victimized by oil pollution and had less of a shipping interest. Moreover, a part of the financial burden is (as a result of the Fund Convention which provides for a financing by the oil industry) shifted to the oil receivers. Hence, from a public choice perspective the international oil pollution regime (and some of its inefficiencies, such as the financial caps) could well be the result of a competition between different interest groups as

[128] Cummins, P., Logue, D., Tollison, R. and Willett, T., 1975, p169-206.
[129] Cummins, P., Logue, D., Tollison, R. and Willett, T., 1975, p175.
[130] Cummins, P., Logue, D., Tollison, R. and Willett, T., 1975, p204-206.
[131] Keenan, D. and Rubin, P. H., Shadow Interest Groups and Safety Regulation, International Review of law and Economics, 1988, 21-36.
[132] For a similar analysis to explain the emergence of the nuclear liability convention see Faure, M. and Van den Bergh, R., Liability for Nuclear Accidents in Belgium from an Interest Group Perspective, International Review of Law and Economics, 1990, Vol. 10, p241-254.

predicted by Gary Becker.[133]

Also the changes that took place after the original adoption of the conventions, more particularly through the Protocols of 1992, 2000 and 2003 could well be explained as the result of changes in the balance of power between the various interest groups. The more accidents occurred, especially in Western Europe and the larger the amount of damage was, the stronger coastal states like France and Spain of course became in their lobby within the IMO to increase the financial compensation to the victims. The result of this changing balance of power of course led to the most recent Supplementary Fund Protocol whereby today substantial amounts of compensation are provided through the fund even though the limits on the liability of the tanker owner are still kept in place.

IX. Concluding remarks

In this chapter the traditional economic analysis of accident law is used to analyze the legal regime on oil pollution damage compensation. First how an optimal regime could look like is sketched from an economic perspective. The main features from this theoretical analysis were that a strict liability rule should be imposed, but that a (comparative or contributory negligence) defence should be added to account for the victim's influence on the accident risk. Moreover to cope with the insolvency risk the liability of the parties involved should be covered through some kind of financial security. It was held that in principle all those who can influence the oil pollution risk should be exposed to liability and in principle to the full amount. If alternative compensation mechanisms were to be installed the financing of those should in principle mimic the insurance market, i.e. risk differentiation should be applied to provide optimal incentives for risk reduction.

The confrontation of the legal regime with the economic analysis led to a few findings with respect to the marine oil pollution compensation regime: first, as far as the imposition of a strict liability rule and adding a comparative negligence defence is concerned, the international, US and Chinese oil pollution regimes to a large extent follow the predictions from the economic model. Second, a compulsory insurance mechanism is necessary and is economically justified. In this respect, both the international and the US regimes have implemented the compulsory insurance, while the lacking of effective insurance in China should be improved. However, under the international and the US regime, there is a minimum tonnage requirement for tankers in order to take out insurance. Such a provision does not correspond with the efficiency standards from an economic perspective. However, the inefficiency under OPA is not as severe as under the international regime since the minimum tonnage under OPA is at a much lower level, thus those excluded from insurance obligation are less than under the CLC. There are now efforts at international level to improve such a situation. The Working Group set up by the Fund is working on removing the minimum tonnage requirement which is not justified from economic perspective. Third, one major deviation from the economic theory found in all the three legal regimes is that the liability is capped to certain amount, known as the limitation of liability. This

[133] Becker, G., A theory of Competition among Pressure Groups for Political Influence, Quarterly Journal of Economics, 1983, 371-400.

is inefficient as it does not only lead to insufficient compensation of pollution victims, but also the underdeterrence of the potential polluter (either shipowner as under the CLC, or the shipowner, the operator and the bareboat charterer under the OPA), moreover, it constitutes subsidy to the shipping industry. Fourth, one feature peculiar to the international regime is that the liability is channelled to the tanker owner, excluding the liability of others who could have contributed to the risk. This may also exclude the possibility for other parties to take necessary preventive measures. In this respect, the joint and several liability under the OPA is more efficient than the channelling provision under the CLC. Fifth, additional compensation provided through a fund is economically justified. The situations in China where pollution victims were left without compensation is a good illustration that such a supplementary compensation mechanism is necessary. However, the financing structure of the IOPC Fund and the OSLTF are only to a limited extent risk related. Hence, the efficiency of such mechanism is doubtful. In all, it seems the liability regime introduced in OPA is far more efficient than the international regime or the Chinese regime.

Interestingly enough one may notice that many of the economic arguments were also (often implicitly) presented at the 1969 Conference which prepared the CLC and also in early literature published in maritime law journals shortly after the adoption of the CLC and Fund Convention. The difference between these early papers (most of these date from more than 30 years now) and this analysis is that the current analysis could take into account more recent law and economics literature (like the many publications of Shavell on accident law) and hence that the oil pollution compensation regime could be addressed in a more integrated manner. Moreover, this analysis could also take into account the evolution of the international oil pollution compensation regime since the set up in 1969/1971. In fact recent evolutions only reinforce some of the early analysis in which *inter alia* criticism was formulated on the channelling and on the financial limits. Indeed, every new pollution incident with every time higher damage made an adaptation of the convention limits necessary. The result has been a cascade of protocols and amendments. It even led to a threat of a European Commission's initiative to set up a compensation fund for oil pollution damage for Europe, separate from the international regime. Under this threat the amounts in the Fund Convention were in May 2003 again increased so that the total amount of compensation available now totals approximately one billion US dollar. All these evolutions make clear that the idea itself of limiting liability should probably be critically reassessed. This is obviously the case for the channelling as well, since this leads to the non-liability of many who could contribute to the oil pollution risk.

Of course one should always take into account that every economic analysis has its limits. Although this analysis focused on the international oil pollution compensation regime, from an economic perspective the main goal of this regime should be the prevention of oil pollution incidents. In the policy reality prevention of course plays a role as well, but providing actual compensation to victims after an incident occurred is often a much hotter political issue. Moreover, many will argue that prevention should primarily be achieved through regulations, e.g. aiming at a better functioning of the classification societies, port state control and phasing out of single hull tankers. Still, the supplementary deterrent function of liability rules may, also in the context of oil pollution incidents, not be underestimated, as was clearly stated in the (early)

literature. The fact that liability rules have apparently not been able to prevent major oil spill incidents can of course hardly be provided as evidence of a lacking deterrent function of liability rules generally. Given the channelling of liability and the low limits it is of course difficult for liability rules to exercise fully their desired preventive effect in the current legal context.

Moreover, economic analysis of course mainly focuses on efficiency and less on distributional issues. The reason why a regime which would be preferred from an economic perspective is not introduced may well be due to distributional reasons. Smets for instance indicated that a problem with an increase in liability limits is that this increase will be borne by all countries but may only benefit one country each year which would be victim of a major oil spill. Moreover the risk of oil spills may vary from country to country and some countries may not be willing to invest additional public expenditure or face an increase in the cost of imported oil[134].

Also, our analysis limited itself to a public interest perspective of the international oil pollution compensation regime. It may, however, be clear that the parties involved do not only strive to serve the public interest, but (mainly) their private interests. The 1969/1971 CLC/Fund regime was clearly the result of a workable balance between the competing interests. The ship owning states of course defended different interests than coastal states which could be victimized by oil pollution and had less of a shipping interest. Hence, from a public choice perspective the international oil pollution regime (and some of the inefficiencies discovered through the above analysis, like financial caps) could well be the result of a competition between different interest groups.[135]

[134] See Smets, H., 1983, p35-43.
[135] See Becker, G., 1983, p371-400.

Chapter 10 Conclusions and Policy Recommendations

I. Legal history

1. "Shifts" in the development

In this thesis, I have examined how the civil liability regime on marine oil pollution was introduced at the international level (Chapter 3) and how this regime has been amended to adapt to the changing situation (Chapter 4). After identifying the reasons for such changes, I have also analyzed what the implications of such changes are to the industries and other parties concerned (Chapter 5).

The historical development of such an international marine oil pollution compensation regime has illustrated some interesting "shifts" in the compensation from a legal historical perspective.

First of all there are shifts within the private law mechanism. Indeed, in the particular case of marine oil pollution compensation, the original general principles in tort do not fully apply. For instance, the common law principle of tort (e.g. trespass, negligence and nuisance) was not applicable to oil pollution compensation as a result of the CLC 1969, which imposed a strict liability on the tanker owner. Such a shift to strict liability often takes place with respect to the environmental damage. Another example of a shift is that the principle of compensation to the full amount was abandoned as the liability of the tortfeasor (in the case of oil pollution usually the tanker owner) is limited to a certain amount via the so-called limitation of liability provision. However, this limitation amount has been increased several times, more particularly in the 1992 and 2000 Protocols. This may lead to the question if such a trend of an increasing limitation of liability would eventually lead to a shift back to the principle of *restitutio in integrum*. A third example is that in the oil pollution compensation regime, it is only the registered shipowner that can be held liable where the liabilities of all the other (potentially liable) parties are excluded from liability due to a channelling provision. Such a shift from the actual tortfeasor to the statutorily channelled person occurs not only in the regime of oil pollution compensation, but also in the international conventions on nuclear liability.[1]

Moreover, there seems to be a shift from private law to public law since part of the compensation is contributed by the oil industry through the International Oil Pollution Compensation Fund (the IOPC Fund, or the Fund) established under the Fund Convention, and the Fund is financed by the levies on the oil importers in the member states. Prior to the establishment of the Fund, the only source of compensation under the international regime was the limited liability undertaken by tanker owner who is of course a private party. The compensation through the Fund is not private in the sense it is not the private party (the individual oil cargo owner) who pays for the damage compensation, but the organization called the IOPC Fund, which is an inter-governmental organization. It therefore seems to be a shift from private compensation to public funding.

[1] Paris Convention on Third Party Liability in the Field of Nuclear Energy, 1960 and Vienna Convention on Civil Liability for Nuclear Damage, 1963.

However, one may question if the Fund is "public" in nature since it is contributed by the private oil industry, although it is administered by an intergovernmental organization. The liability imposed on the state by the Fund is only to submit the list with names and addresses of the oil companies who are to be contributors to the Fund, not to directly finance the Fund. It was only until the 1992 Fund that the state would compensate for the financial loss it has caused to the Fund due to its failure in submitting the oil report. Lately in the 2003 Supplementary Fund Protocol, the state responsibility is made heavier in the sense that the member state would pay contributions for the quantity which equals the difference between 1 million tons of contributing oil and the aggregate quantity of actual contributing oil receipts reported in respect of that state.[2] So there is at least some kind of shift from private to collective compensation, although it might be doubtful if such a shift is indeed from private to public funding.

Another shift from private to public law concerns the main player who organizes the conferences that lays at the origin of the international conventions. This consists of a shift from a private organization (CMI) to a public organization (IMO). Such a shift from a non-governmental to a governmental organization represents a shift from private law to public law instrument. The international oil pollution compensation regime has also gone through a change in mechanism from voluntary industry schemes (TOVALOP and CRISTAL) to international conventions (CLC and Fund Convention). The reason behind such shifts is that the maritime world stresses the importance of international uniformity. Although such strive for uniformity in legal rules may not be efficient or effective, it does motivate the changes in the international oil pollution regime. For instance, at the threat of EU to set up a regional compensation fund, the international conventions were amended to compromise the needs of the EU and to avoid further regional action.

2. Historical reasons for "shifts"

In addition to identifying such shifts, I also try to find some possible explanation for such shifts from a legal history perspective. The shifts within private law, including the shift to strict liability while capping at a certain amount, and the shift to public law (the compensation fund) came as a whole, were probably the result of a political compromise. It was already realized at the 1969 conference that a new convention without support from the major maritime nations would be meaningless since it would inevitably impose liability on the ship industry or shipping-related interests. Therefore, the negotiation of the international convention was a compromise considering the interests of these coastal states and shipping nations, as wide acceptance by a large number of shipping states was necessary for the new convention to become effective. Hence, the whole process to bring about the international convention is not a pure legal discussion, but more the result of a balance struck between all the interests involved, the oil, the ship and the insurance industries. It is probably more a political than a legal process.[3]

The strict liability on the shipowner was argued by those with interests in shipping to be too

[2] Annual Report 2005, IOPC Fund, p29.
[3] See also Gaskell, N., Decision Making and the Legal Committee of the International Maritime Organization, Legislative Approaches in Maritime Law, in: Proceedings from the European Colloquium on Maritime Law, 2000, p41-91.

severe, and the limitation was needed to mitigate such harshness. Moreover, the shipping industry alone would not agree to assume the liability unless the oil industry shares the costs as well. The Fund was thus designed to strike the balance between the shipping and the oil industry.[4]

The goal of the CLC 1969 was set to reach full compensation for oil pollution victims, but the adopted limitation of liability is obviously against such a principle. Since the liability is capped at a certain amount, the full compensation might be impossible in case of catastrophic oil spill when the actual damage is higher than the limited amount. The long maritime tradition to limit the liability of the shipowner to a certain amount has influenced the design of the oil pollution compensation regime. Therefore the limited liability was unanimously accepted. Moreover, the limitation of liability was considered necessary since it could mitigate the severe strict liability imposed on the shipowner by the CLC.

However, it seems paradoxical that since the shift to limited liability was included in the CLC 1969, the limitation amount was increased several times since its adoption. This was mainly because some catastrophic oil spill incidents are indeed of a higher scale than the limited amount. In order to reach the goal of full compensation of oil pollution victims, the limitation amount was raised to the level which was considered sufficient at the time. The question may be asked whether should there be a limitation at all if the limitation amount was raised over and again. On the other hand, when the limitation amount was increased, the right to call on such a limitation was at the same time strengthened. The examination of the legal history shows that such a paradoxical decision came as a result of a political compromise to strike a balance among all the interests involved.

The channelling of liability under the CLC which constitutes a shift in liability from the tortfeasor to one exclusive party seems most problematic. The shift came as the draftsmen were influenced by the nuclear industry, and to exclude the liability of the oil industry since they would contribute to the liability via the compensation fund. The channelling may have the advantage of easy identification of the responsible party. However, when the parties are protected from assuming liability under the channeling provision, they may lose the incentive to take prevention. Therefore, channelling is often criticized especially by economists as being inefficient. And again, the history showed that despite the criticism on the channelling, it was nevertheless established and even strengthened through history, mainly as a result of political concession.

The shift to the compensation fund was clear from the outset that the contribution from the oil industry to the compensation regime would be a pre-condition for the shipping industry to accept liability under the CLC 1969. Indeed if it were not the prospect of a compensation fund contributed by oil industry, the major shipping states would not have ratified the CLC at all. The shift to the compensation fund thus again showed that the international oil pollution liability system came as a political compromise between competing interests. In the initial Fund

[4] The wide acceptance of the CLC was considered largely due to the supplementary fund. See De la Rue, C., Review of the Civil Liability and Fund Conventions, in: CMI Yearbook, 2003, p579.

Convention 1971, it was once proposed to impose certain liability on the state so that the contribution to the Fund could be secured. However, mainly due to the fear that such a heavy burden on the state would make states refrain from ratifying such convention, this provision was not included in the Fund Convention 1971. Later during the years of operation, lack of incentives for the states to submit oil report led to enormous difficulties for the Fund. At the suggestion of the Fund, the provision on the state responsibility was added although so far the Fund has not used such right against any state yet. This may again strengthen the trend from private to public institutions in the marine oil pollution compensation regime.

3. Observations from legal history

Some interesting observations can be made from the examination of the legal history of the international oil pollution compensation regime which may contribute to the understanding of the shifts that have taken place in such a context.

First, the history of the oil pollution conventions made clear that shifts often took place as a result of sudden events, more particularly spectacular cases of oil pollution. In this respect, the benchmark for the international regime on civil liability for marine oil pollution is the Torrey Canyon which happened in 1967. And the later accidents Amoco Cadiz (1978) and the Tanio (1908) off the French Brittany coast triggered the modifications of the 1969/1971 regime in 1984, the recent Erika (1999) and Prestige (2002) led to the 2000 Protocols and 2003 Supplementary Fund Protocol. It were often those cases that triggered the shift from private to public funding (i.e. the coming into being of the IOPC Fund) or shifts within the private funding system (i.e. increasing the limit on liability). Hence, the legislator in this particular domain apparently does not base particular shifts on a clear idea of whether funding should preferably take place from private rather than from public sources.

The history of the conventions showed that this choice is often more the result of lobbying and competing interests of various powerful lobby groups. Moreover, the oil pollution case also showed that some shifts were merely copied from other international regimes, in this particular case, from the nuclear liability conventions. The channelling of liability was, without much discussion, copied from the nuclear liability conventions, and also the limitation of the liability of the shipowner was implemented as a kind of natural phenomenon in maritime law. Again this shows that whereas one can academically develop criteria for the ideal legal framework providing optimal compensation and funding, the political process hardly seems to take into account criteria like efficiency or effectiveness. It seems more the relative strength and political power of the parties involved in the lobbying that will determine what shifts take place and how these are shaped.

Finally the oil pollution regime also nicely illustrates that states and more particularly state delegations at the convention, of course represent the point of view of the major interest groups within their country. Hence, even though neither the shipping industry nor the oil companies were formally involved in the drafting of the conventions (they only have observer status at the IMO), one can clearly see that the conventions are the results of a compromise which results

from the way in which the various states have represented the interest of the industries involved.

II. Comparative analysis

In addition to the international oil pollution regime, I have also examined the particular cases of US (Chapter 6) and China (Chapter 7), and later these regimes as well as the international regime are subject to a comparative analysis (Chapter 8).

The US constitutes a major exception to the international regime as it is not a party to either of the international conventions, but has adopted its own domestic law, the OPA 1990, which has made it impossible for the US to participate in the international regime. From the examination of the US legal history, it can be observed that the US has been always active in the debate at the international level for the negotiation of the international conventions. However, it never delayed its action at domestic level. Various federal laws have been adopted in the 1970's. Although the provisions in these federal laws do not seem much more pro-active than the international regime, and despite the efforts of the international diplomatic conference to compromise towards the requirements of the US, the US still decided not to ratify the 1984 Protocols. It believed in the approach that the national interest could be better protected via domestic legislation. The fear of preemption of state laws was always a major issue. Triggered by the Exxon Valdez and some other incidents that happened during the period of late 1989, the 15 years of legislative efforts of the US Congress were achieved through the adoption of the OPA in 1990.

China has adopted an incomplete compensation system in the sense that it did not ratify the Fund Convention, and there is so far no effective compulsory insurance mechanism. As illustrated in the analysis of Chapter 6, the main reason for China not to join the Fund Convention was clearly the influence of the state-owned oil majors in China. Admittedly, Chinese oil industry may constitute a big enough market for the establishment of a domestic fund. However, the unwillingness to pay from the oil majors in China which are now in a monopoly position might be difficult to change. Hence, it is pretty predictable that there is a long way to go before China can really establish its domestic fund.

Before being surrendered to the comparative analysis, the international conventions are presented to a vertical analysis in the sense the contents of the 1969/1971 regime are compared with the 1992 Protocols with subsequent change in amounts of the 2000 Protocols (Chapter 5). The general principles of strict liability of the tanker owner and compulsory insurance remain unchanged. However, the comparison revealed that the trend at international level was to tighten the liability provision to focus it more on one party (the registered tanker owner) than on any other party. On the other hand, the position of the tanker owner was strengthened in a way through the provisions on conditions to lose the limitation right although he is exposed to higher liability. It seems there is a change of the power of the interest groups, especially that of the shipping and the oil industry. If one claims that the 1969/1971 regime was the result of lobbying of the powerful maritime states, the 1992 regime reflected more the interest of the rising oil interest.

Through the parallel comparison between the international, the US and the particular Chinese

regime (Chapter 8), it is found that first of all, a liability system combined with a compensation fund provides a better solution to the oil pollution problem than a liability system alone, as indicated by the problematic situation in China in cases of oil spills. Second, an effective insurance mechanism is a guarantee for the implementation of the liability system, and its necessity is again illustrated by the Chinese regime in comparison with the international and US systems. Due to the lack of effective financial guarantee, the Chinese pollution victims were not able to recover their losses as the responsible shipowner is very often insolvent. Third, the liability of the shipowner is limited under all the three regimes although they are limited in different manners. The US regime provides the highest limitation amount among the three regimes and it allows for the easiest penetration of the limitation right plus strict requirements for the parties in order to benefit from the limitation right. The non-preemption of state laws also makes the limitation right of the shipowner under OPA almost unlimited. Under the international regime, there is no restriction on the enjoyment of the limitation right, and the limitation amount has been increasing since its original adoption. It was until the 2003 Supplementary Fund Protocol that the compensation under the international regime has reached around 1 billion US dollar which is closer to the OPA limit of OSLTF. The Chinese limits are the lowest and it may be justified by the particular situation in China which is a developing country, but the low limits are also one source of the insufficient compensation for oil pollution victims in China. Fourth, the channelling provision in the CLC is one of the reasons that the US refused to ratify the international conventions. Contrary to the international regime, the US OPA has adopted the joint and several liability of the tanker owner, the operator and bareboat charterer.

III. Economic analysis

1. Analysis of the international, the US and the Chinese regime

After examining the oil pollution compensation regime from a purely legal perspective, the international, the US and Chinese oil pollution compensation regime were analyzed from an economic perspective (Chapter 9). By applying the economic theory, it is established that a theoretically optimal compensation regime should expose all those who contribute to the risks to the liability and to the extent that their liability contributes to the accident risks, whereby the externalities caused by oil pollution can be internalized and optimal incentives for prevention can be derived from the liability regime. Based on the economic model, some features of the oil pollution compensation regime have been analyzed.

Through the analysis, it is found that first the imposition of strict liability and compulsory insurance largely correspond with economic theory. Second, the limitation of liability is inefficient. However, this inefficiency is less obvious in the US regime as the amount is higher and the extra conditions to comply with safety standards in order to benefit from such a right. The inefficiency of limitation is strengthened in the Chinese legal regime as the limitation amounts are much lower. Third, the channelling provision in the international regime proves to be economically inefficient, and the joint and several liability in the US regime seems more efficient at least from an economic point of view.

Moreover, it is also found that the establishment of an alternative compensation mechanism such

as a compensation fund is well founded from an economic perspective. In order for such a compensation fund to be efficient, its structure should be based on risk differentiation. In this respect, the Chinese legal regime is in a more disadvantageous position than the other two regimes as it does not have such a fund mechanism at all. However, the structure of the IOPC Fund and the US OSLTF does not seem to be risk related, which makes them inefficient as well. On the other hand, the OSLTF is only to certain extent related to the risks since part of the contribution comes from the fines. This may be considered to certain extent risk related.

In all, if one wants to compare the efficiency of all the three regimes, the US shall be considered the most efficient as it has the highest financial limits and some additional provisions to remedy at least partially the inefficient aspect of limitation of liability. The use of financial limits in OPA as a reward to the responsible parties for complying with safety standards and providing assistance for oil removal is better than the almost automatic granting of a limitation right under the CLC. The OPA model of the limit may serve as an incentive for prevention. Moreover, the joint and several liability under OPA, unlike the channelling in the CLC, exposes as wide as possible the potential liable parties to the liability, including the shipowner, the operator and the bareboat charterer. Hence, the underdeterrence of channelling does not exist in the US regime. In contrast, the Chinese oil pollution regime seems the most inefficient due to lack of effective compulsory insurance and a compensation fund which prove necessary from an economic perspective.

2. Economic rationale for the historical development

In addition, some economic theory can be linked to the legal history of the compensation regime and some findings from the legal history correspond with the economic reasoning and they may be explained from an economic perspective. First, the economic theory of path dependency can be used to explain why the limitation of liability was introduced into the oil pollution compensation regime without much debate. Moreover, the channelling provision is also a dependence on the existing nuclear liability conventions introduced in the beginning of the 1960's. Second, the public choice theory can explain why the international oil pollution compensation regime is shaped with two levels of compensation, from the shipping and the oil industry respectively. The contents of the CLC for instance can also be considered the result of the lobbying by interest groups. The changes of the balance of the interest groups have led to the recent changes, as the power of the EU countries getting stronger at the international scenario, they as major oil spill victims, successfully lobbied for higher compensation amounts.

3. Regulation v. liability

At last, the usefulness of liability rules is also analyzed in its function vis-à-vis the regulations. As it is realized that only one aspect of the oil pollution issue, being the liability and compensation regime is analyzed, and this provides only "one view of the cathedral". Other issues, such as prevention of oil pollution through safety regulations were not examined in detail. Moreover, it is well-known from the literature that the prevention of accidents can not only be achieved through liability rules, but obviously through regulation as well. Hence, the effectiveness of the international regime aiming at the prevention of oil pollution spills is probably even more

important. Indeed, prevention is always better than cure. This is also the limit of this thesis that simply one aspect of oil pollution regime is analyzed, being the liability, and the regulation directly aimed at pollution prevention is not examined. However, the economic analysis has established that the liability rules can be designed to provide incentive for prevention. This was confirmed in both early literature in the 1970's and in some recent work in 2006. Although only providing additional deterrent effect supplementary to the safety regulations, the preventive effect should not be overlooked when designing a liability rule. This was also the goal of this thesis, being how to shape liability rules in such a way that provide for optimal incentives for prevention.

Moreover, it should once more be stressed that law and legal remedies can only to some extent hope to achieve an influence on the behaviour of social actors. A true change towards ecological behaviour of the oil industry will only be achieved if the norms are truly internalised and if the oil industry becomes aware that prevention of oil spills and providing adequate compensation is an essential part of their duty towards socially responsible governance. However, the public at large should equally be aware of the fact that increased preventive measures and increased compensation always come at a price: these steps will undoubtedly lead to (probably even small) increases in oil prices which the public at large must finally be willing to pay.

4. Statistics

Since its establishment in 1996, the 1992 Fund has been involved in 31 oil pollution incidents and has paid compensation totaling 229 million pounds.[5] The 1971 Fund since its establishment in 1978 has been involved in 107 oil pollution incidents and has paid compensation totaling 329 million pounds.[6]

It would of course be desirable if theoretical economic analysis could be backed up by solid empirical evidence. Statistics have also shown that from 1970 to 2004, the number of oil spills is in the trend of decreasing, both in terms of volume and in number of incidents.[7] On average, there were 25.2 spills per year in the 1970's, this was reduced to 9.3 per year in the 1980's, and to 7.8 per year in the 1990's. The figure between 2000 and 2004 shows the average spill per year is 3.8 in this period.[8] However, it is difficult to simply judge on the basis of such statistics if the reduction of oil spill incidents mainly comes as the result of increasing safety measures, or the liability rules. Hence, it might be difficult to judge on the basis of existing data the effect of the liability system vis-à-vis regulations aiming at prevention.

IV. Policy recommendations

From the above analysis, if one would like to draw some normative conclusions at the policy level, they seem relatively straightforward: in order to have an efficient civil liability system for marine

[5] See 92 FUND/A.12/3, SUPPFUND/A.3/2, 71 FUND/AC.22/2, 4 October 2007, p5.
[6] Ibid, p5.
[7] Statistics from ITOPF: www.itopf.com/stats.html
[8] This is the number of oil spills over 700 tonnes. The ITOPF has maintained a database of oil spills from tankers since 1974. In this database, the spills are categorized by size, being those spills less than 7 tonnes, between 7 and 700 tonnes, and those more than 700 tonnes. Until now among the recorded 10,000 incidents, 84% of the spills are of less than 7 tonnes. Statistics from ITOPF: www.itopf.com/stats.html

oil pollution damage, an effective insurance mechanism is necessary, the financial limits should be abolished and there should be no channelling of liability, the structure of the compensation fund should be risk related. Hence, some policy recommendations may be elaborated respectively for the three regimes focused in this thesis.

1. International

At international level, the above analysis has suggested that the inefficient provisions on channelling should be abolished. Notably, the elimination of channelling of liability is already being carried out in some recent convention, being the International Convention on Civil Liability for Bunker Oil Pollution Damage 2001 (Bunker Convention)[9] which is modeled on the CLC. Interestingly, the Bunker Convention largely shares the general principles of the CLC, including the compulsory insurance with the right of direct action, and limitation of liability. However, there is one significant deviation, being the Bunker Convention exposes not only the registered owners, but also operators and charterers as well to liability. This breaks from the channelling provision of the CLC 1992.[10] This shift to multiple liability is judged by some to indicate pressure from the US and the European Commission on the IMO to accord more with American liability norms in the domain of oil pollution, although it also reflects the need to make up for the absence of a second tier of supplementary compensation as under the Fund Convention.[11] However, the fact that the channelling provision was removed from the Bunker Convention indicates that it is possible for the CLC to remove the channelling provision as well.

Second, the limitation of liability should be abandoned as well. As the limitation can be separated fro the insurance amount, when the statutory liability is unlimited, the insurance can still be prescribed to certain amount (most likely the maximum insurable amount). This has drawn more attention recently. In regimes other than that of ship source oil pollution legislation, unlimited liability accompanied by capped but compulsory insurance has been accepted. In the Council of Europe Convention on Civil Liability for Damage resulting from Activities Dangerous to the Environment (21 June 1993, Lugano), a provision relating to limitation of liability in an earlier draft is deleted and Article 12 of the said Convention imposes an obligation on an operator to take part "in a financial security scheme or to have and maintain a financial guarantee up to a certain limit… as specified by internal law…".

These two recommendations, being the elimination of financial limits on liability and the channelling of liability, have also been the focus of some policy makers. For instance, the European Commission has exercised serious criticism on the mechanism of financial caps as well as on the channelling of liability.[12]

A third policy recommendation for the international regime is that the minimum tonnage requirement for the compulsory insurance should be deleted. This is also one of the central issues

[9] Adopted 23 March 2001. If entered into force, the Bunker Convention would cover fuel oil spills from vessels other than tanker.
[10] Mason, M., 2003, p10.
[11] Wu, C., Liability and Compensation for Bunker Pollution, Thomas Miller P&I Ltd., New Jersey, 2001, p4.
[12] In the so-called Erika I and II packages, the European Commission criticized particularly the existence of the limitation of liability and the channelling provision. See the discussion in Chapter 4.

considered by the Working Group set up by the Fund, and it is considering the possibility of including all ships regardless of the tonnage requirement.[13]

In addition, the IOPC Fund should be restructured to be more risk related. This also corresponds with the focus of the Working Group's current work to make use of the liability, insurance and the Fund system to address the issue of substandard transportation of oil.[14]

2. US

For the US regime, it is difficult to formulate a straightforward policy recommendation as the inefficiencies from economic perspective are to a large extent remedied by the legislation itself. First, concerning the limitation of liability, the analysis has shown that it is in general inefficient as it leads to underdeterrence, undercompensation and subsidy of the shipping industry. However these inefficiencies in the US regime seem not so problematic as in the international regime. As demonstrated in the above analysis, the financial limits in OPA are granted under strict condition and the responsible parties may easily lose such right if they do not comply with federal safety standards or provide cooperation to minimize damage. Hence, although their liability is in theory limited, the shipowners and other parties may still have incentives to take preventions up to the standards in relevant regulations in order to benefit from the right to limit. In such a case, if the incentive derived from such provision is optimal mainly depends on if the safety standards established through the federal regulation is optimal. However, the efficiency of safety regulations is beyond the discussion of this thesis.

Second, as far as the compensation fund in the US is concerned, the structure of the OSLTF is to a minimum extent risk related. Hence, the OSLTF should be restructured to be more risk related.

3. China

China can undoubtedly learn a few important lessons from this analysis. The amounts available for compensation under Chinese law are far lower than even the (already low) financial limits under the CLC. More seriously, there is only a general requirement of financial security in Chinese national law, which is not effectively implemented at all. Given the insolvency risk the first priority for Chinese legislation should probably be to specify the duty for tanker owners to purchase financial security to an accurate and applicable extent (instead of only one general provision on the state to ensure the compulsory insurance system in Article 66 of the Marine Environment Protection Law). Hence, the most important lesson for China is probably that appropriate incentives in the fight against underdeterrence can be provided by implementing a duty to insure. Compulsory insurance for oil tankers, in cooperation with insurance companies, work a way out on a method for oil pollution insurance that is applicable to small oil carriers which are often employed in practice especially on domestic lines.

Moreover, the question arises whether in case of major oil spills in China sufficient funds will be

[13] For more discussion on the Working Group, see the discussion in Chapter 4. Annual Report 2005, IOPC Fund, p32.
[14] Ibid, p32.

available to provide compensation of the damage caused by oil pollution. China (mainland) is a State party to the CLC Convention, but has not acceded to the Fund Convention, nor set up a domestic fund. Therefore, it is confronted with an unfavourable situation in which spills cannot be effectively cleaned up, and economic losses cannot be sufficiently compensated. The relevant government departments have gained an adequate understanding of the issue and have conducted studies on whether China should accede to the Fund Convention and how China can establish a compensation mechanism for ship oil pollution. Through extensive investigation, it is suggested to establish a Chinese-type compensation mechanism for ship oil pollution.[15] The establishment of an oil pollution compensation fund, even if this is first only at the domestic level, could expand the potential of China's accession to the Fund Convention.

There are in this respect interesting parallels between evolutions in Europe and in China. Europe has apparently, more particularly after the Erika incident, not been too satisfied with the compensation regime provided through the IMO-made international conventions and was at a moment even considering the establishment of a fund for the compensation of oil pollution damage in European waters.[16] This European threat then led the IMO to the most recent amendment, increasing the available compensation to 1 billion USD. A similar evolution whereby national or regional systems come in addition to the international regime can be found in China as well where the establishment of a domestic fund is seriously considered.[17] This domestic fund may well be a first step in the direction of China's accession to the IOPC fund.

V. Case study: Erika

The judgment of the Tribunal of Paris (Tribunal de Grande Instance de Paris) of 16 January 2008 in the Erika case[18] provides in some way a nice example of some of the central points of this thesis. The case is dealt before a criminal court against several individuals and legal persons, given the fact that French criminal law recognizes the criminal liability of legal entities. The criminal aspects of the case are of course less interesting within the framework of this thesis. However, under French law victims of a crime can act as so-called "civil party" ("partie civile" in French) in the criminal court. This hence means that they can bring the civil claim e.g. for compensation also in the criminal court.

In the particular case of Erika many civil parties (the French state, many departments, regions, communities, associations and individuals acted as civil party. Hence, the tribunal had to decide whether their claims would follow the international oil pollution compensation regime, as this has been laid down in the 1992 Conventions and was implemented in the French law. The latter would of course imply, as discussed in detail in this thesis that a claim could only be brought against the tanker owner and against no one else (as a consequence of channelling) and that the amount of liability will be limited (due to the limitation of liability).

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[15] Liu, H. and Zhou, Z., Establishing a Chinese Compensation Mechanism for Ship oil Pollution, Institute of Scientific Research under the Ministry of Communications, Beijing, 2002.
[16] Official Journal, C227E/487 of 24 September 2002.
[17] For an overview of regional solutions see Gold, p40-44 and see also Harjono, M. and Leemans, E., Vervuilen loont. Organisatie van internationale scheepvaart stimuleert milieuvervuiling op zee, in Justitiële verkenningen, (2003/2) (criminaliteit op zee), p68-69.
[18] Tribunal de Grande Instance de Paris, 16 January 2008, Judgment No.9934895010.

It is interesting to notice that the Tribunal takes great efforts in precisely avoiding the application of the international regime with its negative implications for the victims. Before addressing the reasoning of the Tribunal on that point, first the parties against whom the civil claim was brought should be briefly introduced. To be clear: the entire judgment consists of 278 pages and contains many interesting, also technical and legal aspects concerning the Erika disaster, which go beyond the scope of this thesis.

The Tribunal discusses the roles of various parties and, when discussing the criminal liability, equally discusses the respective faults of those parties. These faults are then subsequently used when discussing the civil aspects to argue that each of those parties has also contributed to the Erika disaster. The parties who are interesting from the perspective of civil law (more particularly because they were held jointly and severally liable by the Tribunal) are the following:

First, there is a Mr. Savarese, who at some moment purchased the Erika, but who according to the Tribunal brought the Erika into a separate legal entity, more particularly Tevere Shipping. Tevere was created as a single-ship corporation to limit financial risks.[19] The Tribunal holds that Savarese was therefore not the tanker owner, but merely the operator of the Erika (in French referred to as "armateur").[20]

Second, attention is also paid to a Mr. Pollara, a former captain on tankers who functions as the manager of the Erika and who has executed repairs on Erika.[21]

In addition, the legal entities that are of relevance are on the one hand the classification society and on the other hand the cargo owner Total SA. The classification society is the Registro Italiano Navale (abbreviated as RINA) who had controlled and approved the Erika. The situation of Total is rather interesting in the sense that the civil claim is against Total SA as owner of the oil. However, another legal entity Total Transport Corporation (TTC) was formally charterer of the ship.

When discussing the criminal liability, the Tribunal argues that all of these (and a few other, but less relevant for the civil claim) parties have some responsibility for the Erika disaster in the sense that they could have taken measures to prevent the incident from occurring. The Tribunal for instance holds that Savarese organizes the operation of the Erika in such a way that his goal was to limit his personal responsibility and even attempted to set aside the application of the international conventions. He had illegally obtained certificates which did not reflect the correct

[19] P105 of the judgment section 1.1.2.1 states that "la création d'une société par navire, comme de TEVERE SHIPPING pour l'ERIKA était destinée à limiter les risques financiers." The judgment even specifically used the term in English "single ship company". See p105 of the judgment.
[20] P105 of the judgment reads: "Pour définir son rôle dans l'exploitation de l'ERIKA, Monsieur SAVARESE déclarait au magistrat instructeur, puis confirmait à l'audience, qu'il considérait être "armateur", ce qui recouvrait les aspects commerciaux et financiers du navire, les relations avec les assurances, les modalités de recrutement de l'équipage et, qu'en aucun cas, l'aspect financier n'avait été délégué à la Bank of Scotland, car il se chargeait du paiement des dépenses de réparation et d'entretien ainsi que des factures des fournisseurs."
[21] P106 of the judgment at section 1.1.2.2.1 reads: "En mars et avril 1997, Monsieur SAVARESE sollicitait le concours de Monsieur POLLARA pour des travaux effectués sur l'ERIKA …"

state of the Erika. This behavior constitutes according to the Tribunal a fault.[22]

Classification society RINA controlled the situation of the Erika and should according to the Tribunal have withdrawn the ISM certificate of the vessel. Many more faults are considered with the classification society in detail in the judgment.[23] The blame against Total SA is, to put it relatively simple, that Total chooses to ship its cargo with a vessel of which the safety was obviously below standard. Again, a detailed analysis of the wrongful behavior by Total can be found in the judgment.[24]

Most interesting for the purpose of this research is how the Tribunal deals with the civil claims by the victims against the four mentioned defendants. In Section 3.1.2 the judgment start by discussing in detail the applicability of the 1992 Protocols as they have been implemented in French law by the Decrees of 7 August 1996.[25] The tribunal recognizes the international regime organizes an exclusive liability system in Article III.4 of the CLC 1992. It paraphrases the Protocol arguing that a claim for compensation for pollution damage can not be formulated against the tanker owner on any other basis than the convention and cannot be introduced either against:
(a) the servants or agents of the owner or the members of the crew;
(b) the pilot or any other person who, without being a member of the crew, performs services for the ship;
(c) any charterer (howsoever described, including a bareboat charterer), manager or operator of the ship;
(d) any person performing salvage operations with the consent of the owner or on the instructions of a competent public authority;
(e) any person taking preventive measures;
(f) all servants or agents of persons mentioned in subparagraphs (c), (d) and (e).[26]

The tribunal next goes on to examine whether any of the four parties mentioned is either the

[22] See p208 of the judgment, section 2.1.2.2.10.1.1: "Selon la juridiction d'instruction, Monsieur SAVARESE avait aménagé sa situation personnelle et organisé la gestion de l'ERIKA afin de limiter la mise en jeu de sa propre responsabilité, en contournant ainsi l'application des conventions internationales, obtenu indûment des certifacats qui ne correspondaient pas à l' état réel du navire et fait modifier la configuration du navire et son port en lourd imposant des contraintes structurelles à un navire âgé en état de corrosion avancée.
…
En revanche Monsieur SAVARESE a commis une faute caractérisée qui a exposé autrui à un risque d'une particulière gravité en décidant de fréter de nouveau à temps l'ERIKA le 14 septembre 1999…"
[23] For a detailed discussion of the fault of the classification society, see p210-214 of the judgment.
[24] See p214-217 of the judgment.
[25] P234 of the judgment.
[26] P234 of the judgment holds that "Aux termes du paragraphe 4 de l'article III de ce protocole, aucune demande de réparation de dommage par pollution ne peut être formée contre le propriétaire autrement que sur la base de la convention, et, qu'elle soit ou non fondée sur la convention, ne peut être introduite contre:
a) Les préposés ou mandataires du propriétaire, ou les membres de l' équipage;
b) Le pilote ou toute autre personne qui, sans être membre de l' equipage, s'aquitte de services pour le navire;
c) Tout affréteur (sous quelque appellation que ce soit, y compris un affréteur coque nue), armateur ou armateur-gérant du navire;
d) Toute personne accomplissant des operations de sauvegarde avec l'accord du propriétaire ou sur les instructions d'une autorité publique compétente;
e) Toute personne prenant des measures de sauvegarde;
f) Tous préposés ou mandataires des personnes mentionnées aux alinéas c,d et e, à moins que le dommage ne résulte de leur fait ou de leur omission personnels commis avec l'intention de provoquer un tel dommage, ou commis téméairement et avec conscience qu'un tel dommage en résulterait probablement."

tanker owner or belongs to one of the other categories mentioned above in which case the exclusive channelling to the tanker owner would apply. In the words of the Tribunal: it is hence necessary to determine whether the persons held criminally liable for the pollution crime, being Mr. Saverese, Mr. Pollara, and the enterprises RINA and Total SA are envisaged by the mentioned provisions which would exclude any claim for compensation other than the one introduced according to the rules of the mentioned convention.[27]

As far as Mr. Savarese is concerned, the Tribunal holds that he is neither the tanker owner nor servant or agent of the tanker owner ("le préposé ou mandataire du propriétaire").[28] Mr. Pollara, so the Tribunal holds, does not belong to any of the categories mentioned in Article III. 4 of the CLC 1992.[29] The classification society RINA held that it had performed services for the vessel in the sense of Article III. 4 (b) mentioned above which would exclude any action against it. The Tribunal however holds that one has to read this in the context of the entire section (b) which holds "the pilot or any other person who, without being a member of the crew, performs services for the ship" shall be excluded. The Tribunal therefore holds that a person performing services for the vessel should necessarily be someone who participates directly in the maritime operation ("participant directement à l' opération maritime"). Hence, the Tribunal held that this was not the case for RINA in its relationship to the Erika.[30]

As far as Total SA is concerned, the Tribunal is brief: it was neither the charterer of the tanker ("affréteur du pétrolier) nor the operator ("armateur"), or one of its agents or servants ("un de leurs préposés ou mandataires").[31] Indeed, as mentioned above, the formal charterer of the tanker was not Total SA but a related enterprise TTC, who has signed the charterparty with Selmont.[32] Nevertheless, given the fact that TOTAL SA has ordered inspection of the Erika to check if the relevant documents required by international conventions are in place and hence TOTAL SA has certain power of control over the management of Erika which has been effectively exercised.[33]

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[27] P234 of the judgment: "Il est en conséquence nécessaire de déterminer si les personnes pénalement responsables du délit de pollution, en l'occurrence Messieurs SAVARESE et POLLARA, les sociétés RINA et TOTAL SA, sont visées par ces dispositions qui excluraient, selon le cas, toute demande en réparation autre que celle présentée en application des r è gles conventionnelles précitées, ou toute demande de reparation fondée ou non sur ces règles, et rendraient la juridiction répressive incompétente pour connaître des demandes d'indemnisation formées à leur encontre."

[28] However, the Tribunal did not mention that Mr. Savarese was the operator (see p105 of the judgment), whose liability under the CLC 1992 Article III.4 (c) should be excluded. In this respect, the reasoning of the Tribunal seems rather confusing.

[29] Here again, the Tribunal was very quick in coming to the conclusion that Mr. Pollara does not belong to the parties whose liability are excluded through the channelling provision. It seems the Tribunal omits on purpose to go back to its finding that Mr. Pollara was the manager (see p106 of the judgment) who could be exempted under the CLC 1992. Therefore, the reasoning of the Tribunal is not undebated.

[30] P235 of the judgment: "C'est pourquoi, en visant de façon générique les pilotes ou toute autre personne qui, sans être membre de l' équipage, s'aquitte de services pour le navire l'exclusion prevue par le b) du paragraphe 4 de l'article III ne peut s'entendre que de celle relative aux personnes qui, san être membres de l'équipage, s'acquittent de prestations pour le navire en participant directement à l'opération maritime, situation qui n' était pas celle de la société RINA à l' égard de l'ERIKA."

[31] P235 of the judgment.

[32] P227 of the judgment: "la charte-partie a été conclude entre SELMONT, le fréteur, et TTC, l'affréteur".

[33] P228 of the judgment in section 2.1.3: "En revanche, la société devenue TOTAL SA a fait procéder à l'inspection du pétrolier sur la base d'un document comportant quatorze rubriques et plusieurs centaines de questions relatives à la certification et la documentation, l'équipage, les moyens de navigation, le code ISM, la prévention de la pollution, la structure, les moyens de manutention de la cargaison et du ballast, l'inertage des citernes, les moyens de mouillage, les machines et appareil à gouverner, l'aspect général et les capacités de

The Tribunal therefore concludes that the civil claims of the victims are subjected to the application of the French national law. A consequence is on the one hand that the limitations of the international regime do not apply, but on the other hand that the channelling does not apply either. As a result, the four mentioned parties were held jointly and severally liable for substantial amounts well beyond the value of the limitation to compensate more than 50 civil parties.

The important lesson from this judgment lays not in the legal details in its specific contents nor in the substantial amount awarded (a reform of this judgment is very likely on appeal). The judgment, however, nicely illustrates a general point made in this research as well, being that some characteristics of the international regime (channelling and limitation of liability) make it ill-suited to deal with major pollution incidents. This explains why the Tribunal of Paris goes at great length in attempting precisely to avoid the application of the international regime which was supposedly created to protect the interest of victims of marine pollution. It is at this stage less relevant to discuss whether the reasoning of the Paris Tribunal is flawless from a legal perspective, but more important is that the case illustrates that judges feel dissatisfied with the international regime and rather try to construct a legal reasoning to be able to apply their national law which provides a better protection to pollution victims.

VI. Conclusions and outlook

Through the analysis of the legal history, the comparative analysis and the economic analysis, some conclusions can be reached.

First, this thesis is based on the idea that liability rules may have deterrent effect on the behaviour of the parties involved in certain activity, thus liability rules have certain preventive effect. This was already recognized in the early literature in the 1970's that civil liability could also serve a prophylactic function. For example Wood applied such an approach to oil pollution and argued that a properly structured civil liability system would exert influence to discourage polluting discharges of oil into waters and to ensure that unavoidable oil spills can be contained and cleaned up expeditiously.[34] In some recent research, this opinion was again confirmed by Hay.[35] Moreover, it seems the preventive effect of the liability system is drawing more attention from the international organizations when carrying out their work. The IOPC Fund is currently considering the possibility of using liability to remove sub-standard oil shipping.

Over the years, both regulations on prevention and liability rules have been developing to cope with the marine pollution problem. However, the regulations aiming at safety standards,

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transfert de cargaison de navire à navire, document complété par les précisions et l'avis personnel de l'ancien officier navigant ayant mené cette inspection, ainsi que par l'appréciation portée, en dernier lieu, par le service vetting.
Ayant vérifié de façon aussi détaillée que l'ERIKA remplissait les conditions de sécurité qu'elle avait définies, puis obtenu l'assurance de la part du gérant technique que les remarques formulées lors de cette inspection seraient prises en compte, la société devenue TOTAL SA ne peut affirmer que, pour la gestion d'un navire accepté à l'affrètement au voyage dans ces circonstances, elle n'a disposé d'aucun pouvoire de contrôle, alors qu'elle l'a, de fait exercé."

[34] Wood, L., 1975, p2.

[35] Hay, J., 2006.

including construction and operation of the ships, training of seafarers, navigation rules did not succeed in preventing oil spills from happening. Several studies have shown that human factors contribute to a large part of the marine casualties.[36] In this respect, the liability can function as supplementary mechanism to correct the human factor which is not optimally controlled via the regulations.

Second, from a purely legal perspective, the goal of liability rule is victim compensation. Through the examination of the legal history and its recent development, and by comparing different legal regimes, it can be observed that the situation of the victims is in general improved although not completely satisfactory since the risk of undercompensation still exists in case of catastrophic oil spills. Internationally, it has developed from a legal vacuum prior to 1969 to a two tier compensation system consisted of CLC and Fund Convention, which provided compensation to the victims in a large amount of cases. After revised in 1992, the international regime provided even higher compensation to the victims, but the right of the shipowner to limit his liability is strengthened which makes it almost unbreakable. Hence, the victims are exposed to an increased but yet insufficient compensation in case of major oil spills. The 2003 Supplementary Fund has increased the compensation to around 1,000 million USD. This is considered by some sufficient in all cases. However, if this is the case still needs to be tested by another major oil spill. However, it is hoped that through the more extensive regulations and improved liability rules, such drama would not happen again.

Interestingly, in the US, as far as compensation is concerned, the position of the victims in 1990 has reached the level of the counterparts at international level today. This is because the 1990 OPA has established the Oil Spill Liability Trust Fund which provides 1 billion USD available for oil pollution compensation.

In China, the most obvious problem is the insufficient compensation for Chinese domestic oil pollution victims where no compulsory financial guarantee or compensation fund is available.

Third, different than the existing literature, this thesis has combined the use of legal and economic tools. Such an analysis has established that the strict liability as adopted in the international regime, although corresponds largely with the economic rationale, was originally adopted as a political compromise based on the condition that the liability of the shipowner would be limited to certain amount, and on the condition that the oil industry would contribute to the compensation regime as well. The increase of limitation amount in the 1992 Protocols is conditional on the secured right to limitation. Later changes of a third tier of compensation contributed by the oil industry led to the reaction of the shipping industry with its insurers, the P & I Clubs of some voluntary agreements to increase the limitation for small tankers. All these changes, as indicated by the public choice theory, are the result of the balance of competing interest groups and their changes in powers led to further recent changes.

Therefore, the different methods used in this thesis have led to findings different than the existing

[36] Kim, I., 2002, p200.

literature as mentioned in Chapter 1. For instance, the research carried out by Wu[37] has reached the conclusion that the US legislation is too severe and imposes excessive burden on the shipowners and cargo owners. However, by applying economic analysis, it is found that the seemingly too severe legal rules provided in OPA is actually more efficient than the international regime as it is better at correcting the underdeterrence problems arising from the limitation of liability and channelling under the international counterpart. Even further, the limitation should be eliminated from the oil pollution compensation regime. Wu also predicted in 1996 that the improvement of the situation might lay in a third level of compensation[38] which is now already implemented through the 2003 Supplementary Fund. Her idea was that the society as a whole should contribute to the finance of such a fund since it benefits from the oil shipping activity. Differently, our finding is that such a compensation mechanism should expose those who contribute to the risks to the risks proportionate with their contribution to the risks, thereby optimal incentives for prevention can be generated through such a funding system. This is not done yet at international level or in the US, but this thesis has proved the feasibility of such a system. In this respect, I hope this research may have some added value to the development of a better compensation.

The recent oil spill from the offshore drilling unit Deepwater Horizon in the Gulf of Mexico off the Coast of Louisiana, US in April 2010 has raised concern over the oil pollution from offshore facilities. Indeed, even when the international regime would apply to the situation (which is not the case since the US is not a party to the international regime), the CLC and the Fund Convention only provide for compensation for oil pollution caused by tanker incidents, and do not apply to pollution caused by offshore facilities. Although OPA 90 does provide for liability for damage resulting from accidents related to those facilities, it is very likely that the damage caused by this incident will exceed the liability limits under the OPA provisions. BP was the principal developer of the oil field and leased the oil rig Deepwater Horizon from its owner Transocean Ltd. until 2013. Although the US government announced to hold BP as responsible party to pay for the cleanup costs and the related damages, it is still to be seen whether BP will actually be willing to pay compensation also beyond the statutory limits under OPA. This recent case once more shows the dynamic nature of oil pollution compensation legislation. Even when the international regime and OPA have been refined and adapted to such an extent that everyone believed that the system would be able to cover even in case of major pollution incidents, the technical realities of catastrophes (in casu that oil pollution cannot only be caused by tankers, but also result from offshore installations) show that again loopholes in international conventions or legislations may exist which make further extensions and amendments necessary. In that sense, legislation with respect to oil pollution damage can probably never be considered perfect and it remains important to pay attention to the question how the legal regime can adapt to changing technical realities of oil pollution catastrophes, also in the future.

[37] See Chapter 1, Wu, C., 1996, p396-397.
[38] Wu, C., 1996, p396-397.

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Samenvatting

Zeewaterverontreiniging door olie heeft de wereldwijde aandacht getrokken sedert de zestiger jaren toen enkele grotere olievervuilingen zich voordeden. Een groot aantal regels ter preventie evenals wetgeving met betrekking tot de vergoeding van slachtoffers is sinds dat ogenblik tot stand gekomen. Het vervoer van olie via de zee is sinds die periode alleen maar toegenomen, terwijl het aantal vervuilingen lijkt af te nemen. De wetgeving lijkt een belangrijke rol te hebben gespeeld in de vermindering van deze verontreinigingg gevallen, maar toch zijn de wettelijke regelingen nog niet volledig afdoende. Immers, ook grote verontreinigingen doen zich nog steeds voor. Dit rechtvaardigt derhalve de vraag of het huidige systeem verbeterd kan worden teneinde zeewaterverontreiniging door olie verder te voorkomen.

In dit proefschrift worden de internationale rechtsregels met betrekking tot zeewaterverontreiniging door olie eerst vanuit een historisch perspectief geanalyseerd. Het valt immers op dat rechtsregels steeds tot stand lijken te komen na een spectaculair ongeval.

Met behulp van de economische analyse van het recht worden essentiële onderdelen van het internationaal regime met betrekking tot de civiele aansprakelijkheid voor zeewaterverontreiniging door olie kritisch bekeken, ook in vergelijking met de regeling in de Verenigde Staten. Met behulp van deze analyse wordt aangetoond dat objectieve aansprakelijkheid vanuit economisch perspectief inderdaad de aangewezen aansprakelijkheidsregel is, aangezien het gaat om een activiteit die een hoog risico meebrengt voor het leefmilieu, zoals het vervoer van olie over zee. Belangrijk is echter om deze aansprakelijkheid te leggen op degene die daadwerkelijk invloed heeft op het ongevalrisico. De aansprakelijkheid uitsluitend te verbinden aan de scheepseigenaar, zoals dit in de internationale verdragen is vastgelegd, is derhalve vanuit economisch perspectief niet efficiënt.

Een belangrijk kenmerk van zowel het internationale regime als de regeling in de Verenigde Staten is de beperking van de aansprakelijkheid. Het gevolg daarvan is dat de betrokken partijen niet aansprakelijk zijn voor de gehele schade die zij door hun activiteiten zouden kunnen veroorzaken, maar alleen tot een wettelijk bepaalde limiet. De economische analyse wijst erop dat juist bij zeewaterverontreiniging door olie, waar de omvang van de schade zeer hoog kan zijn, een (wettelijk) beperkte aansprakelijkheid tot een te geringe vergoeding van het slachtoffer kan leiden, maar ook tot een te beperkte afschrikking van potentiële verontreinigers. Een recente wijziging in het Amerikaanse recht koppelt de beperking van aansprakelijkheid aan de preventieve maatregelen die ten aanzien van de tanker zijn genomen. Dit wijst erop dat het mogelijk is om aansprakelijkheidsregels ook zo te construeren dat daarvan een positieve prikkelwerking op de betrokken actoren uitgaat tot het investeren in preventieve maatregelen.

De economische analyse wijst er ook op dat een verplichte financiële zekerheid (zoals verplichte verzekering) een belangrijk middel is om om te gaan met het potentiële risico dat verontreinigers in het geval van zeewaterverontreiniging door olie insolvent kunnen zijn. Insolventie kan er immers toe leiden dat potentieel aansprakelijke partijen de kosten van hun activiteit

externaliseren daardoor te veel investeren in bepaalde risicovolle activiteiten. Een verplichte verzekering zal tot optimale uitkomsten leiden wanneer een insolventierisico bestaat. Belangrijk blijft echter dat het bedrag van de financiële zekerheid accuraat wordt bepaald. Wanneer dit bedrag te laag is, zal de verwachte internalisering van de externaliteit niet worden gerealiseerd.

In geval van zeewaterverontreiniging door olie is het mogelijk dat de potentiële schade zo hoog is dat traditionele verzekering of een zogenaamde pooling door scheepseigenaren niet in staat zijn om slachtoffers op adequate wijze schadeloos te stellen. Derhalve kan het aangewezen zijn een schadefonds in het leven te roepen om aanvullende vergoeding te garanderen. De economische theorie wijst erop dat een dergelijk fonds efficiënt kan zijn wanneer de bijdrage aan het fonds alleen wordt gevraagd van degenen die ook daadwerkelijk aan het risico hebben bijgedragen en ook in de mate dat zij daaraan hebben bijgedragen. Een analyse van het International Oil Pollution Compensation Fund (IOPC Fund) laat zien dat de bijdrage aan dit fonds alleen gerelateerd is aan de hoeveelheid olie die werd getransporteerd door de eigenaar van de lading. Derhalve biedt de huidige financieringsstructuur van het IOPC Fund onvoldoende prikkels aan deze ontvangers van de olie om in preventieve maatregelen te investeren; er wordt alleen een prikkel geboden om het activiteitsniveau aan te passen. Vanuit dat perspectief is het IOPC Fund inefficiënt. Bovendien blijkt uit de totstandkoming dat dit IOPC fonds uitsluitend in het leven werd geroepen om een balans te vinden tussen de belangen van scheepseigenaren en de oliemaatschappijen.

Meer dan 30 jaar ervaring heeft aangewezen dat het internationaal regime met betrekking tot de vergoeding van slachtoffers van zeewaterverontreiniging door olie in de meeste gevallen in staat was om slachtoffers schadeloos te stellen. Echter, wanneer zich catastrofale ongevallen voordoen, zoals met de Erika of de Prestige, blijkt het systeem nog steeds niet te voldoen. Ook wijst de economische analyse op mogelijkheden om het huidige systeem te verbeteren. Een vergelijking met de Verenigde Staten wijst ook op mogelijkheden tot verbetering van het internationale regime. Het beste voorbeeld ter zake is de recente wijziging in de Verenigde Staten van de beperking van aansprakelijkheid, waarbij deze beperking nu gerelateerd wordt aan het veiligheidsrisico dat een bepaalde tanker biedt. Dit toont aan dat het mogelijk is door wijziging van de regulering bepaalde inefficiënties in het huidige regime uit de weg te ruimen.

Ook de rechterlijke beslissingen, zoals deze met betrekking tot de Erika, tonen de beperkingen aan van het internationale regime voor zeewaterverontreiniging door olie. Ook de nationale rechtbanken pogen desbetreffend mee te werken aan verbeteringen van het internationale regime.

Samenvattend heeft het internationaal regime inzake zeewaterverontreiniging door olie, dat tot stand kwam en ontwikkeld werd ten gevolge van enkele grotere ongevallen, enkele inefficiënte aspecten, vanuit een economisch perspectief. Vaak dient een afweging te worden gemaakt tussen verschillende belangen, maar uiteindelijk is het regime wel in staat om nu een schadeloosstelling op te brengen van 1000 miljoen US dollar, hetgeen toch zeer indrukwekkend is.

Curriculum Vitae

Wang Hui was born on the 24th December 1977 in the north of China, Dalian. Although it is not a big city (by Chinese standards since it has only 5 to 6 million inhabitants), it has a beautiful harbor where her father worked for years as an engineer. The close link with the sea took her to study at Dalian Maritime University between 1996 and 2000 for a degree of bachelor in law, specialized in maritime law. Afterwards between February 2001 and January 2002, she went to study at the Catholic University of Leuven in the LL.M program. Later in October 2002, she returned to her hometown in China and worked for a French maritime firm CMA-CGM (Compagnie Maritime d'Affrètement - Compagnie Général Maritime) to have direct contact with the huge container ships. She returned to Europe in September 2003 to continue the pursuit of further research at KU Leuven, and later in the Erasmus University of Rotterdam.